

Duke Power Company
Legal Department
422 South Church Street
Charlotte, NC 28242-0001



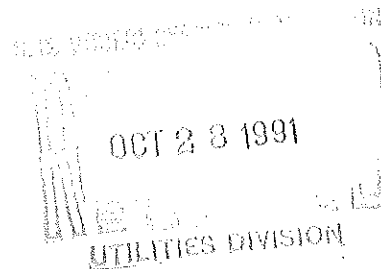
DUKE POWER

704/382-8127

(704) 382-8137 Fax

STEVE C. GRIFFITH, JR.
LEWIS F. CAMP, JR.
RAYMOND A. JOLLY, JR.
W. EDWARD POE, JR.
ELLEN T. RUFF
WILLIAM LARRY PORTER
JOHN E. LANSCH
ALBERT V. CARR, JR.
WILLIAM J. BOWMAN, JR.
ROBERT M. BISANAR
EDWARD M. MARSH, JR.
RONALD V. SHEARIN
W. WALLACE GREGORY, JR.
JEFFERSON D. GRIFFITH, III
JEFFREY M. TREPEL
PAUL R. NEWTON
GARRY S. RICE
LISA A. FINGER
KAROL P. MACK
CHRISTIN J. BRAMLETT
OF COUNSEL
WILLIAM I. WARD, JR.
GEORGE W. FERGUSON, JR.

October 25, 1991



Mr. Charles W. Ballentine
Executive Director
The Public Service Commission
of South Carolina
P. O. Drawer 11649
Columbia, South Carolina 29211

Re: SCPSC Docket No. 91-216-E

Dear Mr. Ballentine:

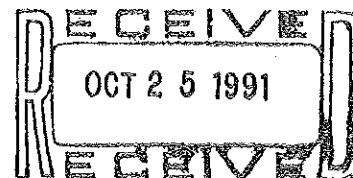
Please find enclosed for filing in the above-captioned matter the original and 10 copies of the Proposed Order of Duke Power Company. Attached is a Certificate of Service for the parties of record.

Sincerely yours,

Ellen T. Ruff
Deputy General Counsel

ETR/sch
Enclosures
cc: Parties of Record
Mr. William F. Austin

S. C. PUBLIC SERVICE COMMISSION



CERTIFICATE OF SERVICE

I hereby certify that I have this day mailed a copy of the Proposed Order of Duke Power Company (SCPSC Docket No. 91-216-E) to the following:

Ms. Marsha A. Ward, General Counsel
The Public Service Commission
of South Carolina
P. O. Drawer 11649
Columbia, South Carolina 29211

Mr. Steven W. Hamm, Consumer Advocate
Ms. Nancy J. Vaughn, Staff Attorney
Department of Consumer Affairs
P. O. Box 5757
Columbia, South Carolina 29250-5757

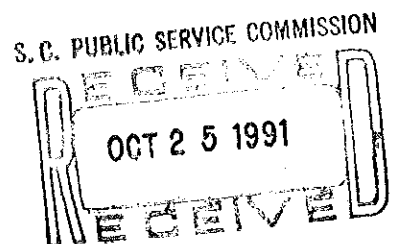
Mr. Arthur G. Fusco
Sherrill and Rogers, PC
P. O. Box 100200
Columbia, South Carolina 29202-3200

Mr. William E. Booth, III
Mays, Foster, Booth & Gunter
2512 Devine Street
Columbia, South Carolina 29205

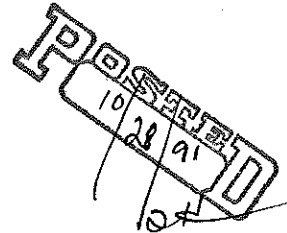
Mr. Jasper P. Rogers
Route 1, Box 346
Ridgeway, South Carolina 29130

This the 25th day of October, 1991.

SLG. RJA



BEFORE THE
PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
DOCKET NO. 91-216-E



In the Matter of)
Application by Duke Power Company)
for Authority to Adjust and Increase)
Its Electric Rates and Charges)

PROPOSED ORDER
OF
DUKE POWER COMPANY

Steve C. Griffith, Jr.
Executive Vice President and General Counsel

Ellen T. Ruff
Deputy General Counsel

Karol P. Mack,
Senior Attorney

Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242-0001

William F. Austin

The Austin Firm
1022 Calhoun Street, Suite 301
Post Office Box 12396
Columbia, South Carolina 29211

Attorneys for Duke Power Company

October 25, 1991

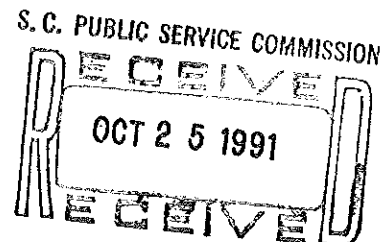
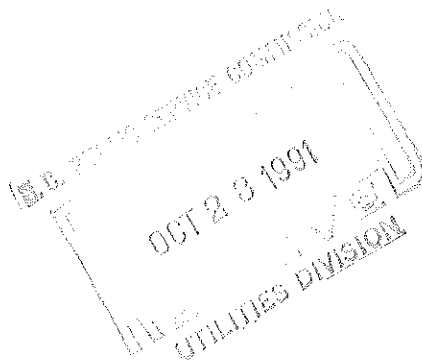


TABLE OF CONTENTS

	<u>Page</u>
Procedural Background	1
Findings of Fact	4
General Procedural Issues	4
Test Period	4
Requested Increase	4
Cost Allocation	5
Test Period Revenue	5
Bad Creek Hydroelectric Station	5
Carolina Power & Light Co. Contract (Schedule J)	5
Test Year and Post-Test Year Cost Increases	6
Implementation of SFAS 106	6
Demand-Side Management Programs	6
Depreciation and Decommissioning Expenses	7
Other Operating Expenses	7
Capital Structure and Rate of Return	8
Material and Supplies	8
Plant Held for Future Use	8
Working Capital	8
Rate Base	8
Revenue Requirement	9
Rate Design	9
Evidence and Conclusions for Findings of Fact	
Nos. 1 and 2 -- Procedural Matters	9
Nos. 3 and 4 -- Test Period and Requested Increase	9
No. 5 -- Cost Allocation Methodology	10
No. 6 -- Present Revenue	11
No. 7 -- Bad Creek Hydroelectric Station	12
No. 8 -- Schedule J	18
No. 9 -- Increase for Wage Rate Changes During the Test Year	18
No. 10 -- Post-Test Year Cost Increases	19
No. 11 -- Implementation of SFAS 106	21
Nos. 12 and 13 -- Demand-Side Management Programs	21
Nos. 14 thru 16 -- Depreciation and Decommissioning Expenses	32
No. 17 -- Test Year Operating Expenses	35
No. 18 -- Capital Structure	52
Nos. 19 and 20 -- Rate of Return	54
No. 21 -- Materials and Supplies	66
No. 22 -- Plant Held for Future Use	67
No. 23 -- Working Capital	67
No. 24 -- Rate Base	72
No. 25 -- Revenue Requirement	77
Nos. 26 thru 28 -- Rate Design	79
Decretal Paragraphs	85

On May 17, 1991, Duke Power Company (Duke or the Company) filed an Application with the Public Service Commission of South Carolina (the Commission) to adjust and increase its retail electric rates and charges, effective for service in accordance with the terms and conditions of §58-27-870, Code of Laws of South Carolina (1976), as amended.^{1/} The rates proposed by the Company in its Application were designed to increase annual gross revenues from South Carolina retail operations by \$72,542,000 or 7.29% based on the test year, i.e., the twelve (12) months ended December 31, 1990.

The proposed revenue increase is distributed among classes of customers by increasing residential revenues by 9.08%, general service revenues by 7.96%, industrial revenues by 5.96%, and outdoor lighting revenues by 6.18%. Different percentage increases for customer classes are proposed because of the existing disparity in rates of return between customer classes.

The principal reason for the requested increase set forth in the Application is the commercial operation of the Bad Creek Hydroelectric Station, a 1,065 MW facility located in the mountains of western South Carolina. Units 1 and 2 began commercial operation on May 15, 1991. Units 3 and 4 began commercial operation on September 3 and September 13, 1991, respectively.

Petitions to intervene were received from the Consumer Advocate, South Carolina Department of Consumer Affairs, the South Carolina Energy Users Committee (SCEUC), the Clifton Power Corporation, and Jasper P. Rogers. These petitions to intervene were allowed by the Commission.

By letter of May 30, 1991, the Executive Director of the Commission required the Company to file with the Commission on or before June 24, 1991, and serve on all parties of record, the testimony and exhibits of the witnesses which the Company intended to offer at the hearing in this matter.

^{1/} Pursuant to the provisions of that section, the Company gave the Commission the statutory 30-day notice of its intention to file an increase in its rates.

By letter of June 11, 1991, the Executive Director of the Commission scheduled a public hearing on September 23, 1991, and required the Company to provide notice of the public hearing by newspaper notices and bill inserts. The Company furnished proof of publication of the required notice on July 19, 1991.

On June 24, 1991, the Company filed with the Commission its prepared direct testimony and exhibits for the following witnesses: William S. Lee, Chairman of the Board and President, Duke Power Company; Roger G. Ibbotson, President of Ibbotson Associates, Inc.; Richard J. Osborne, Vice President, Finance, Duke Power Company; Donald H. Denton, Jr., Senior Vice President, Planning and Operating, Duke Power Company; W. R. Stimart, Vice President, Rates and Regulatory Affairs, Duke Power Company; Ronald E. White, Senior Vice President, Foster Associates, Inc.; and Thomas S. LaGuardia, President, TLG Engineering, Inc. On September 3, 1991, Duke filed Supplemental Testimony and Supplemental Exhibit 1 of W. R. Stimart. Duke filed Supplemental Exhibit 2 on September 20, 1991. During the hearing, Duke filed Supplemental Exhibit 3.

By letter of August 8, 1991, the Executive Director of the Commission required the Commission Staff and all other parties of record to file their testimony on or before September 9, 1991. The following testimony was filed: for the Consumer Advocate: Paul Chernick, Resource Insight, Inc.; Peter J. LanzaLotta, Whitfield Russell Associates; Phillip E. Miller, Riverbend Consulting, Inc.; John B. Legler, Professor of Banking and Finance in the College of Business Administration, University of Georgia; for the Commission Staff: I. Curtis Price, III, A. R. Watts, and James E. Spearman; for the South Carolina Energy Users Committee: Nicholas Phillips, Jr.^{2/} The Commission also

^{2/} Pursuant to their respective requests, the Consumer Advocate and SCEUC were granted an extension of time to September 13 to file their testimony.

received a written statement from Jasper P. Rogers on or about September 21, 1991.

On September 16, 1991, Duke filed updated and revised testimony of Roger G. Ibbotson, and the Consumer Advocate filed a revised exhibit of Peter J. Lanzalotta.

On September 11, 1991, in Order No. 91-775, the Commission scheduled a prehearing conference for September 18, 1991, at 10:00 a.m. The prehearing conference was held as scheduled.

The public hearing before the Commission commenced as scheduled on September 23, 1991. William F. Austin, Esquire, Steve C. Griffith, Jr., Esquire, Ellen T. Ruff, Esquire, and Karol P. Mack, Esquire, represented the Company; Marsha A. Ward, Esquire, represented the Commission Staff; Steven W. Hamm, Esquire, Raymon E. Lark, Jr., Esquire, Nancy J. Vaughn, Esquire, and Richard Elam, Esquire, represented the Consumer Advocate; Arthur G. Fusco, Esquire, represented SCEUC; William E. Booth, III, Esquire, represented Clifton Power Corporation; and Jasper P. Rogers appeared on his own behalf. The public hearing was completed on September 26, 1991.

On September 25, 1991, the Company filed the rebuttal testimony of Donald H. Denton, Jr. and William F. Reinke. Subsequent to the hearing, the Consumer Advocate filed the surrebuttal testimony of Philip E. Miller and Paul Chernick on October 2, 1991.

A night hearing was held in Greenville, South Carolina on October 7, 1991. The Commission heard testimony from the following witnesses: Tom Blank, Jim Schumer, Earl Mills, Joe Jelks, Jim McKittrick, Ron Vankirk, John E. Newman, Robert Keenan, and Kris Risley.

Clifton Power Corporation was granted an extension of time to September 17 to file its testimony, but did not file any testimony.

Based upon the verified Application, the testimony, and exhibits received into evidence at the hearing and the entire record of these proceedings, the Commission now makes the following findings of fact:

FINDINGS OF FACT

General Procedural Issues

1. Duke is engaged in the generation, transmission, distribution, and sale of electric energy in the central portion of North Carolina and the western portion of South Carolina, comprising the area in both states known as the Piedmont Carolinas.

2. Duke is an electric utility operating in the State of South Carolina where it is engaged in the generation, transmission, distribution, and sale of electricity to the public for compensation. The Company's retail operations in South Carolina are subject to the jurisdiction of this Commission pursuant to S.C. Code Ann. §§58-27-10 et seq. (1976), as amended. The Company's wholesale operations in South Carolina are subject to the jurisdiction of the Federal Energy Regulatory Commission (hereinafter "FERC").

Test Period

3. The test period for purposes of this proceeding is the 12-month period ended December 31, 1990, adjusted for certain known and measurable changes.

Requested Increase

4. Duke, by its Application, sought an increase in its basic rates and charges to its South Carolina retail customers of \$72,542,000. Subsequent to the filing of the Application, the Company lowered its request to \$68,384,000.

Cost Allocation

5. The summer coincident peak (summer CP) demand allocation methodology is the most appropriate method for making jurisdictional allocation of production costs and for making fully distributed cost allocations among customer classes in this proceeding. Consequently, each Finding of Fact

appearing in this Order which deals with the overall level of rate base, revenues, and expenses for South Carolina retail service has been determined based upon the summer CP allocation method.

Test Period Revenue

6. The appropriate operating revenues for Duke for the test year under present rates and after accounting and pro forma adjustments are \$994,450,000 for service to the South Carolina retail jurisdiction.

Bad Creek Hydroelectric Station

7. The Commission finds that the costs of the Bad Creek Hydroelectric Station were prudently incurred. In so doing, the Commission specifically finds that all four units were in commercial operation prior to the commencement of the hearing; that the station was completed under Duke's budget; that considering Duke Power's system generation needs, the choice of pumped storage was prudent compared to other types of generation such as combustion turbines; that Bad Creek is needed to enable Duke to meet the load on its system and to maintain a minimum level of reserve requirements; and that the Bad Creek Station is used and useful. The costs of the Bad Creek Station should be included in Duke's rate base.

Carolina Power & Light Co. Contract (Schedule J)

8. No adjustment to the test period for billings to Carolina Power & Light Company under Schedule J is appropriate.

Test Year and Post-Test Year Cost Increases

9. It is appropriate to increase operation and maintenance expenses by \$4,832,000 to reflect increases in wage rates and related fringe benefit costs that occurred during the test year. This adjustment also results in a corresponding increase in payroll taxes of \$419,000.

10. It is appropriate to increase operation and maintenance expenses by \$4,287,000 to reflect increases in wage rates and related fringe benefits and payroll taxes which occurred after the end of the test year.

Implementation of SFAS 106

11. It is appropriate to increase operation and maintenance expenses by \$3,830,000 to reflect the implementation of accrual accounting for other post-retirement benefits expense in accordance with Statement of Financial Accounting Standards No. 106.

Demand-Side Management Programs

12. The Commission Staff, the Consumer Advocate, and the Company entered a Stipulation relating to Demand-Side Management (DSM) cost deferral. The Stipulation is reasonable and is approved by the Commission.

13. It is appropriate to increase operation and maintenance expenses by \$3,911,000 to reflect known increases in costs associated with the Company's load control and interruptible service demand-side management programs.

Depreciation and Decommissioning Expenses

14. The appropriate depreciation rates for purposes of setting depreciation expense are as follows:

<u>Function</u>	<u>Rate</u>
Production	
Steam	2.57%
Nuclear	
Decommissioning	1.61%
Investment	3.09%
Total Nuclear	4.70%
Hydraulic	1.98%
Other	0.74%
Transmission	2.57%
Distribution	3.59%
General (Summary Only)	3.59%

15. In determining decommissioning expense to be included in cost of service, it is appropriate to assume zero real return for qualified nuclear decommissioning trust investments and 1% for nonqualified investments.

16. The appropriate components of decommissioning expense to be included in cost of service are as follows:

<u>Unit</u>	<u>(Dollars in Thousands)</u>	<u>Annual Cost</u>	
		<u>System</u>	<u>S. C. Retail</u>
Oconee 1	\$164,792	\$10,491	\$ 2,722
Oconee 2	158,311	10,101	2,621
Oconee 3	202,855	12,218	3,171
Oconee ISFSI	21,750	1,325	344
McGuire 1	171,246	8,950	2,323
McGuire 2	186,265	9,294	2,412
Catawba 1	23,476	1,199	311
Catawba 2	26,163	1,271	330
	-----	-----	-----
TOTAL	\$954,858	\$54,849	\$14,234
	=====	=====	=====

Other Operating Expenses

17. The reasonable level of test year operating revenue deductions for the Company after pro forma adjustments is \$837,757,000.

Capital Structure and Rate of Return

18. The appropriate capital structure for the Company for use in this proceeding is as follows:

<u>Item</u>	<u>Percent</u>
Long-Term Debt	40.50%
Preferred Stock	9.68%
Common Equity	49.82%

Total	100.00%
	=====

19. The proper embedded cost rates for long-term debt and preferred stock are 8.78% and 7.74%, respectively.

20. The reasonable rate of return on common equity that Duke should be allowed an opportunity to earn is 13.17%, which the Commission adopts for this proceeding. Combined with the debt and preferred cost rates and the capital

structure set forth in the table below, which the Commission finds reasonable, the overall rate of return is 10.87%.

<u>Item</u>	<u>Percent</u>	<u>Cost</u>	<u>Weighted Rate</u>
Long-Term Debt	40.50%	8.78%	3.56%
Preferred Stock	9.68%	7.74%	.75%
Common Equity	49.82%	13.17%	6.56%
	-----		-----
TOTAL	100.00%		10.87%

Material and Supplies

21. The reasonable allowance for materials and supplies investment is \$73,668,000.

Plant Held for Future Use

22. The reasonable allowance for plant held for future use is \$4,402,000.

Working Capital

23. The reasonable allowance for working capital is \$57,832,000.

Rate Base

24. Duke's reasonable original cost rate base used and useful in providing service to the public within the State of South Carolina is \$1,834,972,000, consisting of electric plant in service of \$2,868,210,000; net nuclear fuel of \$88,747,000; plant held for future use of \$4,402,000; materials and supplies of \$73,668,000; and allowance for working capital of \$57,832,000, reduced by accumulated depreciation and amortization of \$924,185,000, accumulated deferred income taxes of \$315,569,000, operating reserves of \$14,180,000, and customer deposits of \$3,953,000.

Revenue Requirement

25. Based upon the foregoing, Duke should increase its annual level of gross revenues under present rates by \$68,384,000. The annual revenue requirement approved herein is \$1,062,834,000 which will allow Duke a reasonable

opportunity to earn the rate of return on its rate base which the Commission has found just and reasonable.

Rate Design

26. The rate designs, rate schedules, miscellaneous charges, and terms and conditions proposed by the Company are appropriate and should be adopted, except as specifically modified herein.

27. The rate of return for the Industrial class is outside of the "band of reasonableness", a band or range of plus or minus 10% of the average retail rate of return. Consequently, the revenue increase approved herein should be distributed in order to move the Industrial class rate of return to the band of reasonableness.

28. The modifications to the penalty provisions of Interruptible Rider IS proposed by the Company should be adopted. The credit should not be increased in view of the substantial participation by customers at the current level of credit.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1 AND 2

The evidence supporting these findings concerning the Company's business and legal status is contained in the Company's verified Application and in prior Commission Orders in this Docket of which the Commission takes notice. These Findings of Fact are essentially informational, procedural, and jurisdictional in nature; and the matters which they involve are essentially uncontested.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 3 AND 4

The evidence for these findings concerning the test period and the amount of the revenue increase requested by the Company is contained in the verified Application of the Company and the testimony and exhibits of Duke witnesses Lee and Stimart.

On May 17, 1991, the Company filed an Application requesting approval of rate schedules designed to produce an increase in gross revenues of \$72,542,000.

Subsequent to the filing of the Application, the Company decreased its request to \$68,384,000. The Company's filing was based on a test period consisting of the 12 months ending December 30, 1990. The Commission finds that this test period is appropriate and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 5

The evidence for this finding concerning the proper production allocation method consists primarily of the testimony and exhibits of Company witness Denton, Commission Staff witness Watts, and SCEUC witness Phillips.

Duke provides retail service in two states as well as wholesale service to certain municipalities and electric membership cooperatives; therefore, it is necessary to allocate the cost of service among jurisdictions and among customer classes within each jurisdiction. The Company based its Application on the use of the summer coincident peak allocation methodology (summer CP), which was found appropriate by the Commission in its order in the Company's last rate case, Docket No. 86-188-E. As Company witness Denton testified, Duke has utilized and the Commission has approved the summer CP method in its cost studies since 1970. Denton also testified that by all forecasts, Duke will continue to be a summer peaking company. (Tr. Vol. 2, p. 91)

Commission Staff witness Watts and SCEUC witness Phillips supported the continued use of the summer CP method. SCEUC witness Phillips presented testimony and exhibits demonstrating the dominance of the summer peak demand on the Duke system. Phillips further testified that other methods of cost allocation would not adequately account for the dominant summer coincident peak and would therefore fail to reflect the actual load characteristics of the Duke system. (Tr. Vol. 4, p. 112) No witness challenged the appropriateness of the summer CP allocation methodology for Duke.

The Commission finds, based on the evidence submitted by the Company, Staff, and SCEUC, that the summer coincident peak allocation methodology utilized by

Duke is most appropriate for Duke and therefore adopts the summer CP for cost allocation in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 6

The evidence for this finding concerning the adjusted level of operating revenues is found in the testimony and exhibits of Company witness Stimart, Commission witnesses Watts and Price, and Consumer Advocate witness Miller.

Company witness Stimart's exhibits reflected adjusted operating revenues under current rates of \$994,450,000 for South Carolina retail operations. (Hearing Exhibit 4, Stimart Exhibit 1, page 1, Stimart Supplemental Exhibit 3, page 1) Commission Staff witness Watts agreed with the Company's (\$1,004,000) adjustment to annualize revenues to the level of rates reflected in the currently approved South Carolina Retail tariffs. Watts also recommended that the Company's adjustment be modified by \$110,510 to reflect the additional revenue associated with the requested increase in the Company's Reconnect Fee from \$5.00 to \$15.00. (Tr. Vol. 5, p. 229) The Commission finds that it is inappropriate to adjust test year revenues to reflect the proposed increased reconnect fee. The additional revenues to be derived from this proposal are part of the Company's requested increase of \$68,384,000 and should be reflected as such.

Company witness Stimart adjusted test year revenue by \$6,517,000 to reflect the expected annual level of KWh sales resulting from growth in the number of customers during the test period. (Hearing Exhibit 4, Stimart Exhibit 1, page 3) Mr. Stimart further testified that the end of period level of residential and general service customers was compared to the average number of customers during the test period. The increases in number of customers were then multiplied by the applicable average KWh consumption per customer to derive the annualized change in KWh consumption based on the number of customers at the end of the test period. (Tr. Vol: 2, pp. 145-146)

Commission Staff witness Price suggested that the standard Commission method of accounting for customer growth be utilized. (Tr. Vol. 5, p. 79) Consumer Advocate witness Miller also recommended using the procedure employed by the Commission in the Company's past cases. (Tr. Vol. 5, pp. 33-34)

The Commission notes that although the Staff and Consumer Advocate contend that they are using the standard approach to customer growth, they determined growth of .87% and .6927% respectively. (Hearing Exhibit 37, Accounting Exhibit A-2 and Hearing Exhibit 36, Schedule PEM5)

The Commission concludes that the Company's adjustment which is based on growth in specific customer classes and which utilizes average consumption by class is a more precise calculation than that proposed by either the Staff or the Consumer Advocate and is therefore appropriate for use in this proceeding.

The Commission finds that the Company's adjustment to annualize revenues to reflect the currently approved South Carolina retail tariffs is appropriate and should be adopted. The Commission also finds that Duke's recommendation for the customer growth adjustment should be adopted.

Based on the above findings, the appropriate level of operating revenues for the Company under present rates after accounting and pro forma adjustments is \$994,450,000.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 7

The evidence for this Finding of Fact is contained in the testimony of Company witnesses Lee, Stimart and Reinke, and Consumer Advocate witness Lanzalotta. Mr. Lee testified that the Bad Creek Hydroelectric Station, a four-unit, 1,065 MW facility, was completed ahead of schedule and under budget. In his prefiled testimony, Mr. Lee testified that Bad Creek would be completed under budget at an approximate cost of \$1.1 billion. (Tr. Vol. 1, p. 59) Mr. Lee testified that pumped storage offers special dynamic advantages to the Duke system that no other type of capacity can offer. Without Bad Creek, the

projected reserve margin in 1991 would have been well below the minimum reserve margin of 20%. (Tr. Vol. 1, p. 60)

In his summary and update of his testimony given on the stand, Mr. Lee stated that Bad Creek Units 1 and 2 went into commercial operation on May 15, 1991 and were in operation at the time of the record summer peak. If these two units had not been on-line, Duke's summer reserve margin would only have been 15%. Unit 3 began commercial operation on September 3, 1991 and Unit 4 on September 13, 1991. Mr. Lee testified that Bad Creek had been completed ahead of schedule and over \$100 million under budget. He stated that the completed cost of Bad Creek compares favorably to other projects completed in the same timeframe. In addition, he testified that the capacity from Bad Creek is necessary to meet the growing demand for reliable electricity in the Duke service area and to maintain adequate reserve margins (Tr. Vol. 1, pp. 66-67)

Mr. Stimart, in the summary of his direct testimony, testified that the final plant cost of Bad Creek was approximately \$1,008,000,000. (Tr. Vol. 2, p. 165)

Company witness Reinke also testified that Bad Creek Units 1 and 2 were needed to meet the summer 1991 peak and Units 3 and 4 are needed to keep reserves at the minimum levels in 1992. Duke's reserves are projected to be 20.7% in 1992 and 18.3% in 1993. (Tr. Vol. 6, p. 94)

Planning for Bad Creek began in the late 1960's when the Company foresaw the need for pumped-storage capacity to complement the nuclear and base load plants that were being planned and built by the Company. Mr. Reinke testified that pumped-storage projects such as Bad Creek offer benefits over and above the value of the capacity alone. Pumped storage is a benefit to the Duke system because its load shape can accommodate the technology and there is sufficient nuclear and fossil generation to provide low-cost pumping energy for Bad Creek. (Tr. Vol. 6, pp. 90-91) With the addition of Bad Creek, the Duke system will

be able to operate more reliably and economically because of the complimentary fit of the pumped-storage generation with the rest of Duke's generation. At a final cost of \$1,008,000,000, Bad Creek compares favorably with other units of its type completed in the same timeframe. Exhibit (WFR-1), Hearing Exhibit 44, to Mr. Reinke's testimony, which assumes commercial operation in 1992, reflects this favorable comparison which is further enhanced by the fact that all four Bad Creek units were brought into operation ahead of schedule.

Consumer Advocate witness Lanzalotta was the only witness who raised any issues concerning the prudence of Bad Creek. Mr. Lanzalotta testified that there are indications that Duke has adequate pumped storage without the addition of Bad Creek. He testified further that his belief was based on his Exhibit (PJL-5), Hearing Exhibit 38, which showed that the generation from Duke's other pumped-storage generating unit, Jocassee, dropped by about 50% in 1992 and 1993, the first years of Bad Creek's operation. (Tr. Vol. 5, p. 119)

Company witness Reinke testified in response to this point and stated that the projected reduced output from Jocassee in 1992 and 1993 is the result of two of the Jocassee units being scheduled to be out of service for approximately six months in each year for major maintenance work. Mr. Reinke testified further that the addition of Bad Creek would enhance the opportunity to conduct the maintenance at Jocassee in the most economical way. (Tr. Vol. 6, pp. 92-93)

Witness Reinke testified that both the Jocassee and Bad Creek units operated above their projected levels of output in 1991. In addition he testified that the pumped-storage generation for the first 19 days of September, 1991, exceeded the total generation for Jocassee in September, 1990. (Tr. Vol. 6, p. 93) The Commission finds the evidence presented on this point by the Company to be convincing and rejects the position advanced by witness Lanzalotta.

Consumer Advocate witness Lanzalotta also testified that Units 3 and 4 of Bad Creek are not needed to maintain reliable reserves over the three-year

period during which Duke expects the rates from this proceeding to be in effect. Mr. Lanzalotta testified that with the addition of Bad Creek Units 3 and 4, Duke's reserves would range from 27.9% to 23.3% during 1991-1993. (Tr. Vol. 5, p. 125) This testimony was addressed by Company witness Reinke who showed that Mr. Lanzalotta had erred in the method he used to calculate Duke's reserves. The apparent discrepancy is in how demand-side programming should be treated in calculating reserve margins. Mr. Reinke testified that the proper method to calculate reserves is to determine the combustion turbine equivalent of demand-side management programs rather than as load, which is how Mr. Lanzalotta made his calculation. Mr. Reinke's testimony sets forth in some detail that where generating capacity is to be deferred or replaced by demand-side programs, it is appropriate to use a generation equivalent model to calculate reserves. Mr. Reinke testified that using this method, Duke's reserves would be 20.7% in 1992 and 18.3% in 1993 after the addition of Units 3 and 4 of Bad Creek. (Tr. Vol. 6, pp. 94-96)

The Commission is convinced by Duke's evidence and finds that Bad Creek Units 3 and 4 are required to maintain reliable reserves. In addition, the Commission specifically finds that Duke's methodology for calculating reserves as presented in its testimony is the proper method to use.

Company witness Reinke discussed the proper Minimum Planning Reserve margin in response to Mr. Lanzalotta's testimony concerning reserve margins. Mr. Reinke testified that the consideration of new demand-side programs and the long lead times required to construct major generating projects have made the matching of growth and the need for generating capacity even more imprecise. Because of these factors, it may well be prudent to increase the minimum planning reserve margin above 20%. (Tr. Vol. 6, pp. 96-97)

The Commission believes this approach has merit and finds that the Company will need to give special consideration to the impact of demand-side programs

in establishing its minimum reserve in accordance with its testimony in this case.

Consumer Advocate witness Lanzalotta offered testimony to show that 1,237 MW of combustion turbines would cost less in 1992 than Bad Creek. Mr. Lanzalotta used a bus bar analysis to show that 1,237 MW of CTs would be able to supply the same amount of capacity and energy expected from Bad Creek in 1992 at a total annual cost which is about \$43,000,000 less than Bad Creek is expected to cost. Mr. Lanzalotta's analysis used a 5.8% capacity factor. (Tr. Vol. 5, p. 128)

Company witness Reinke testified in rebuttal to this point. Mr. Reinke testified that a bus bar analysis, which is simply the annual costs, including capital costs, of the plant divided by its annual output, is inappropriate as a means of comparing generating options with different characteristics. Such an analysis does not take into account the system benefits associated with pumped-storage such as the reduction in spinning reserve requirement and its load following capability. Mr. Reinke testified further that pumped storage is beneficial to the Duke system because its load shape is such that the pumped-storage generation can be utilized during the day to meet system load, and there are sufficient resources in the form of nuclear and efficient fossil generation to provide low-cost pumping at night and on the weekends. (Tr. Vol. 6, pp. 97-98)

Mr. Reinke testified further that Mr. Lanzalotta's use of a 5.8% capacity factor, which does not reflect the impact of the other system benefits of pumped storage in his bus bar analysis, was incorrect. In fact, Bad Creek has operated as high as 33.3% in 1991, and had numerous weeks when the capacity factor has been greater than 15%. Jocassee, Duke's other pumped storage hydroelectric generating station, has operated well in excess of 15% during 1991. A bus bar analysis using a 15% capacity factor rather than a 5.8% capacity factor, would

cost \$10 million less annually than combustion turbines. (Tr. Vol. 6, p. 98) Similarly, a 27% capacity factor for Bad Creek produces a \$79 million benefit annually over combustion turbines.

The Commission finds that, based on the evidence presented by the Company, Bad Creek provides greater savings to the consumer than an equivalent amount of combustion turbines.

Consumer Advocate witness Lanzalotta testified that the cost of Bad Creek was higher than the rates paid to co-generators. (Tr. Vol. 5, p. 127) Company witness Reinke testified in response to this point. Mr. Reinke stated that Mr. Lanzalotta's comparison was incorrect because it attempted to compare resources which have different operating characteristics. Mr. Reinke testified that co-generators and other QF's typically operate around the clock and fluctuate to meet the owner's requirements rather than Duke's system requirements. (Tr. Vol. 6, pp. 98-99) Mr. Lanzalotta acknowledged on cross-examination that one of the advantages of Bad Creek is that it will operate when the Company needs it. (Tr. Vol. 5, p. 171) The Commission finds that based on the evidence, a cost comparison of Bad Creek with co-generation is inappropriate.

After carefully reviewing all of the evidence presented by the parties, the Commission finds that the construction of Bad Creek was prudent and that it is needed to meet the demand in Duke's service area. The Commission finds further that the costs of constructing the station were prudently incurred and that the selection of hydroelectric pumped-storage generation is prudent compared to other generating alternatives. In addition, the Commission finds that Duke's reserve margins with the Bad Creek units in service will be at levels that are reasonable and necessary for reliable service.

The Consumer Advocate has criticized certain other aspects of Bad Creek. The Commission has reviewed this testimony and exhibits carefully. The

remaining criticisms, while not specifically addressed, must be rejected by the Commission as not being supported by the facts in evidence.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 8

In Mr. Stimart's supplemental testimony, he recommended an adjustment to test period revenues to reflect the anticipated billings to be received under FERC Rate Schedule J between Duke Power Company and Carolina Power & Light Company. (Tr. Vol. 2, pp. 159-160) This adjustment would have decreased test period costs by \$11,487,906. (Hearing Exhibit 4, Stimart Supplemental Exhibit 1, page 2) Mr. Lee testified on the stand, however, that Duke had received notice from Carolina Power & Light Company that it did not intend to comply with the provisions of Schedule J. He also testified that litigation could well result. (Tr. Vol. 1, p. 73) Based upon these events, Mr. Lee and Mr. Stimart recommended that no adjustment be made to the test period as a result of Schedule J due to the uncertainties involved in that contract. (Tr. Vol. 1, p. 74) (Tr. Vol. 2, p. 160) Mr. Stimart proposed that any collections received pursuant to Schedule J be placed in a deferred account and that when the uncertainty surrounding the contract is resolved, the Company submit a proposal to adjust rates to reflect the collections in the deferred account and to reflect future collections under Schedule J in rates. (Tr. Vol. 2, p. 160)

The Commission concludes that it would be inappropriate to include any amounts from Schedule J in rates adopted in this proceeding. The Commission orders the Company to place any collections received pursuant to Schedule J in a deferred account.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 9

The Company and Consumer Advocate differed on the Company's adjustment to annualize the increases in wage rates and related fringe benefit costs during the test period. The Company proposed an adjustment of \$4,832,000. Witness Price agreed with this adjustment. While witness Miller agreed with the

"concept of recognizing wage increases which have occurred during the test year", he opposed the Company's adjustment because of Duke Power's plans to reduce its workforce by three percent through attrition by the end of 1991. (Tr. Vol. 5, pp. 26-28)

Mr. Lee testified the three percent workforce reduction is the Company's expectation in an effort to identify all potential cost savings. He also testified that these efforts will not serve to reduce our cost of service but will serve to lower the level of increases. (Tr. Vol. 1, p. 53)

The Commission finds that witness Miller's proposed adjustment is inappropriate and inconsistent with the principles applied by this Commission. The effect of Duke Power's workforce plan on year-end wage expense and other expense levels is neither known nor measurable. The amount of wage increases granted during the test year is known and measurable and should be included in cost of service.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 10

The Company also made provision for the impact of cost increases on the Company's expenses occurring after December 31, 1990, which would be known and measurable at the time of the hearings in this proceeding.

At the hearing, Mr. Stimart identified actual wage increases of \$4,287,000 and an actual increase in NRC fees of \$1,048,000 that the Company had experienced since the end of the test year, December 31, 1990. Mr. Stimart testified that these cost increases are now known and measurable and should be considered by this Commission in determining the cost of service. (Tr. Vol. 2, pp. 166-167)

Staff witness Price recommended in his Supplemental Testimony the inclusion in cost of service of the additional NRC fees. Staff based its recommendation on its examination of the actual bills from the NRC which were furnished to the Staff and Consumer Advocate by the Company. (Tr. Vol. 4, p. 71) (Tr. Vol. 5,

p. 88) Consumer Advocate witness Miller did not address the additional NRC fees. Witness Miller did not take exception to the Company's adjustment to NRC fees as originally filed. In his direct testimony addressing attrition, witness Miller states that the Commission's current ratemaking philosophies mitigate against attrition by permitting "the annualization of various expenses to reflect changes which have occurred beyond the end of the test year, as long as the costs being used are known and measurable and reflective of normal, ongoing operations." (Tr. Vol. 5, p. 24) The Commission concludes that the additional NRC fees of \$1,048,000 are an appropriate component of cost of service which has been audited by the Commission Staff and are a known and measurable ongoing expense.

In his Supplemental Testimony, Staff witness Price did not recommend the inclusion in cost of service of \$4,287,000 for increased wages resulting from actual wage rate increases granted to employees during the period December 31 to July 31, 1991, because he did not have the opportunity to audit those wage increases. Witness Stimart explained on cross-examination that the workpapers were supplied to the Commission Staff and that the wage increase was calculated in the same manner as the adjustment for wage increases occurring within the test year which the Commission Staff accepted. (Tr. Vol. 4, pp. 71-72) The Consumer Advocate did not address this update in wage increases occurring after the test year.

The Commission concludes that the wage increases granted by the Company through July 31, 1991, meet the Commission's test of known and measurable. The Commission is mindful of the continuing effects of inflation on the Company's costs. Wage increases will continue to be granted in the months subsequent to July, 1991, and during the time the rates set in this proceeding are in effect. By including these known wage increases through July, 1991, in cost of service, the Commission is following its policies as outlined earlier by Consumer

Advocate witness Miller in order to give the Company a reasonable opportunity to earn the return this Commission allows.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 11

Consumer Advocate witness Miller recommended that Duke defer the costs associated with Statement of Financial Accounting Standards No. 106 (SFAS 106) because its effective date is not until 1993. (Tr. Vol. 5, p. 48) Company witness Stimart explained that SFAS 106 requires the Company to accrue, during the years that employees render the necessary service, the expected cost of providing those benefits to employees unlike the pay-as-you-go treatment afforded these benefits in the past. Witness Stimart testified that this Statement was effective in 1990 giving Companies some time to obtain the necessary records to adopt this statement as early as possible before the mandatory 1993 date. (Tr. Vol. 4, p. 62) The amount of the Company's adjustment is based on the cost determinations reflected in the Company's recently completed actuarial study undertaken to establish compliance with current accounting requirements. Commission Staff witness Price agreed with the Company's recommendation to recognize SFAS 106 costs in this proceeding particularly in light of the Company's recent major changes in retirement benefits. Price noted that the Company and Commission Staff have known for years that this expense was coming. (Tr. Vol. 5, pp. 92-94) This Commission approved the adoption of SFAS 106 in the GTE South Telephone case in Docket No. 90-698-C. (Tr. Vol. 5., p. 93)

The Commission finds that the Company's adjustment to reflect the implementation of SFAS 106 meets the known and measurable standard and is appropriately included in operating expense.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 12 AND 13

The evidence relating to Demand Side Management (DSM) costs and the DSM Stipulation is contained in the testimony of Company witnesses Lee, Denton,

Reinke, and Stimart; Consumer Advocate witnesses Chernick, Miller, and LanzaLotta; Commission Staff witness Watts; and SCEUC witness Phillips.

Pursuant to Docket No. 87-223-E, the Company, as well as other parties including the Consumer Advocate and Commission Staff, have agreed to comprehensive integrated resource planning procedures, including the requirement for utilities to submit by April 30, 1992, Integrated Resource Plans (IRPS) in accordance with the procedures agreed to and approved by the Commission therein.

Company witness Denton testified that the Company has been engaged in least cost planning since 1974 when the Company recognized the need for an alternative to building generation. (Tr. Vol. 6, p. 124) This planning process became more formalized in recent years and the least cost planning analysis produced a Least Cost Integrated Resource Plan in 1989 followed by two Short Term Action Plans which were submitted to the North Carolina Utilities Commission in 1990 and 1991. Duke will file the results of its current least cost planning cycle with this Commission in April, 1992. (Tr. Vol. 6, p. 125) Mr. Denton testified at length in his prefiled testimony and in his rebuttal testimony as to the comprehensive methodology used by Duke to assess the value of demand-side options as part of the least cost planning process. He testified that the purpose of the process is to select the most appropriate least cost alternative to meet future resource requirements. This is done by subjecting demand-side programs to a complex analysis, the results of which will be to create a blend of available options that will dependably and reliably meet customers' needs at the lowest reasonable cost. (Tr. Vol. 2, pp. 92-93) Witness Denton testified that all of the programs implemented by Duke for which Duke is seeking recovery have been stringently tested to ensure that they are cost effective. (Tr. Vol. 6, p. 127)

Company witness Reinke offered testimony to show how demand-side programs are evaluated as part of Duke's Short Term Action Plan to offset the need for generating capacity. (Tr. Vol. 6, p. 89)

Company witnesses Lee and Denton testified that the Company has accelerated its demand-side expenditures. These increased expenditures are included in cost of service in this case. (Tr. Vol. 1, p. 54; Vol. 2, p. 94) Mr. Stimart testified that test year expenses were adjusted to reflect incremental operating expenses for expansion of DSM programs. (Tr. Vol. 2, p. 151) Mr. Denton testified that the Company is seeking to recover incremental DSM costs of \$6,475,000 in this case. (Tr. Vol. 2, p. 95) Commission Staff witness Watts reflected a similar adjustment in his analysis. Mr. Watts testified that the Staff had reviewed the demand-side programs, analyzed cost data from programs in effect in 1990, and concurs with Mr. Stimart's adjustment. These programs include many currently ongoing programs such as Residential Air Conditioning Load Control, Water Heater Load Control, Interruptible Service, Standby Generator, and Residential Off-Peak Water Heater Sales as well as an end-use research project. (Tr. Vol. 5, pp. 230-231)

Consumer Advocate witness Chernick testified that since the Company has not submitted its integrated resource plan for regulatory review, it has failed to establish that the plan is truly least cost. Mr. Chernick contends that the Company has provided no basis to evaluate the prudence of its demand-side program expenditures. Therefore, Mr. Chernick recommended that the \$6,475,000 should not be recovered in rates in this proceeding until the Company could show the prudence of these costs. If the Company can demonstrate in this proceeding that certain of these expenditures can be prudently committed, then those costs may be approved for recovery through expensing, rate basing, and/or deferrals. For DSM costs that cannot be supported in this case, Mr. Chernick proposed that Duke file for Commission review at a later time. In addition, Mr. Chernick

testified that there were a number of features of the Company's DSM programs that were inconsistent with least-cost principles including: (1) the cost effectiveness of certain programs referred to as "load building", (2) the "lost opportunities" due to the way Duke structured its programs, (3) the possibility of cream skimming, and (4) rate design that encourages customers to "take back" their energy savings through increased consumption. (Tr. Vol. 5, pp. 182-186)

Following the submission of prefiled direct testimony, the Commission Staff, the Company, and the Consumer Advocate reached agreement on a Stipulation for recovery in this proceeding of DSM expenditures related to the Company's least cost plan. (Hearing Exhibit No. 45, Attachment B)

The Stipulation provides first, that the test year (1990) expenditures including advertising expense may be recovered as proposed by the Company in this proceeding. Second, \$6.475 million of DSM costs for programs listed on page 15 of Mr. Denton's prefiled testimony actually incurred by the Company above the test year level may be booked by the Company into a deferred account. Advertising expenditures for these programs that are reasonable and designed to achieve the goals of the respective programs may also be booked into the deferred account. Further, the Company will credit the deferred account for found revenues to the extent lost revenues resulting from lost KWh sales due to DSM conservation programs are included in the deferred account. A return on the deferred balance will be computed monthly and added to the balance. The rate of return will equal the net of tax rate of return approved by the Commission in Docket No. 91-216-E or subsequent rate cases. The Stipulation provides further that if it is determined that the expenditures were prudent and for used and useful DSM programs, the balance in the deferred account will be reflected in the Company's next rate case or appropriate IRP docket by amortizing the then existing balance over a period of five years, except that

the Commission can order a different period if the amount in the deferred account would have a significant impact on rates.

Paragraph 8 of the Stipulation provides that the Commission may consider for inclusion in rates in this proceeding additional DSM costs that are actual and prudently incurred by the Company in 1991 attributable to the Company's Interruptible Service Program, Stand-by Generator Program, Water Heater and Air Conditioner Load Control Programs and associated advertising costs. These programs are listed on Appendix 2 to the Stipulation and amount to \$3,910,814.

Finally, the Stipulation provides that although the parties have entered into the Stipulation, all relevant prefiled testimony, rebuttal and surrebuttal testimony, will be entered into the record as if given orally, and the parties will not cross-examine the witnesses on the testimony. Accordingly, rebuttal testimony was offered by Company witness Denton in response to points raised by Consumer Advocate witness Chernick and surrebuttal testimony was offered by Consumer Advocate witnesses Chernick and Miller.

In rebuttal testimony, Company witness Denton addressed each of the points raised by Mr. Chernick in his direct testimony. Mr. Denton testified that the load building programs referred to by Mr. Chernick and implemented by the Company have been stringently tested to ensure that they are cost effective. Mr. Denton testified further that these programs are cost effective because the marginal revenues exceed the marginal costs and therefore reduce rates for all customers. In particular, Mr. Denton testified that the Company's residential MAX program is not load building but rather is a program that combines high efficiency home insulation techniques with high efficiency heating and cooling equipment. Further, Mr. Denton explained that the dual fuel heat pump program utilizes a high efficiency unit to replace an existing cooling unit which will have a significant demand and energy reduction in the summer months. (Tr. Vol. 6, pp. 127-128)

With regard to the second point raised by Mr. Chernick -- "lost opportunities" --, Mr. Denton testified that the Company agrees with the principle of "lost opportunity" resources and includes this concept in its demand-side program design. In response to Mr. Chernick's concerns regarding the residential MAX program and high efficiency refrigerator and freezer programs, Mr. Denton testified that by specifying a total energy efficiency structure prior to construction, lost opportunities are eliminated. The high efficiency refrigerator and freezer program also makes use of opportunity resources by providing incentives at the time of purchase or replacement of existing units. Finally, Mr. Denton testified that the High Efficiency Heat Pump and Air Conditioning Incentive Program supports opportunity resources by providing a sliding scale rebate that directly provides the economic incentive to purchase the most energy efficient heating and cooling. (Tr. Vol. 6, p. 129)

Mr. Denton also offered testimony rebutting Mr. Chernick's concerns about "cream-skimming". Mr. Denton testified that DSM programs considered by Duke are evaluated for cost effectiveness through the least cost planning process. He pointed out that these programs are designed to maximize total KW and KWh reductions by taking into consideration anticipated customer participation. Mr. Denton concluded that Mr. Chernick was incorrect in his assertions concerning "cream skimming". (Tr. Vol. 6, p. 130)

Mr. Chernick's fourth area of concern dealt with what he called inappropriate conservation rate designs. He stated that Duke's pricing "fits poorly" with least cost planning. (Tr. Vol. 5, p. 211) Company witness Denton testified in rebuttal that Duke uses an established cost of service methodology for rate design which reflects the costs associated with serving customers in particular rate categories. (Tr. Vol. 6, p. 130)

Mr. Denton offered extensive testimony on the Company's least cost planning process. He stated that all DSM programs are stringently tested to ensure their

cost effectiveness. He testified further that all DSM dollars have been prudently spent according to the Company's Short Term Action Plan. (Tr. Vol. 6, pp. 131-132)

Consumer Advocate witness Chernick recommended disallowance of the costs associated with the Company's DSM pilot programs. (Tr. Vol. 5, p. 213) The Company disagreed with this position. Witness Denton testified that the seven pilot programs in place in 1991 are an expansion of these types of programs following the recommendations of certain DSM experts advising the NCUC Public Staff. Mr. Denton stated that these programs will provide important information that will reduce the costs of full scale implementation. Similar testimony was offered by Mr. Denton with regard to funds for evaluation procedures. Mr. Denton testified that such evaluation procedures were needed to ensure accomplishment of objectives for ongoing programs and to verify least cost planning accomplishments. (Tr. Vol. 6, pp. 133-134)

With regard to the Stipulation, witness Denton recommended that the Commission approve the deferred accounting provided for in the Stipulation so that the Company will not be penalized for prudent DSM expenditures. In addition, Mr. Denton testified that 1991 costs referred to in Appendix 1 of the Stipulation were actual costs incurred by the Company with regard to the interruptible service and load control payments that were in excess of the 1990 test year costs. Mr. Denton offered evidence to show that an additional \$3,668,342 was incurred by the Company in 1991 with regard to the Interruptible Service and an additional \$242,472 was incurred with regard to load control payments. Mr. Denton testified that these costs were actual and prudent and should be included in rates in this proceeding. He testified further that Standby Generator payments and advertising were at the same level as 1990 costs. (Tr. Vol. 6, pp. 134-137)

Mr. Denton testified that the Interruptible Service Program has 59 South Carolina industrial customers participating with monthly contract payments of \$1,829 per MW. This program allows the interruption of 243 MW. In addition, 48,112 residential customers are participating in the load control program which allows the Company to interrupt 132 MW when there is a capacity shortage in the service area. The average monthly payment is \$2,214. Mr. Denton testified that the Company compensates customers served by both the interruptible and load control programs under rate schedules approved by the Commission. Under the Standby Generator Program, 24 customers have contracted to provide 7.8 MW of generation during emergencies at an average monthly cost of \$1,549. The Company pays these customers a rate approved by this Commission for actual generation. Finally, Mr. Denton testified that advertising is an essential element of these programs in order to communicate their availability. The costs of advertising are included in the cost benefit analysis of the program. With regard to all of these DSM costs, Mr. Denton testified that when customer payments in these programs are combined with other program costs, the program cost is less than the \$5,100 per MW cost of a combustion turbine, the lowest cost source of equivalent supply side capacity. (Tr. Vol. 6, pp. 136-137) Company witness Reinke's testimony confirmed that these programs have been evaluated as part of the Company's Short Term Action Plan and offset generating capacity that would otherwise be needed. (Tr. Vol. 6, p. 89) Company witness Stimart reflected an adjustment of \$3,911,000 as the amount to appropriately be included in rates based on Mr. Denton's testimony. (Hearing Exhibit 4, Stimart Supplemental Exhibit 3, page 3b)

Surrebuttal testimony was presented by Consumer Advocate witnesses Chernick and Miller addressing certain points in Mr. Denton's rebuttal testimony and certain issues raised by the Stipulation. Witness Chernick recommends that the Commission deny recovery of the 1991 actual incremental DSM expenditures in this

case and defer the costs until Duke documents its expenditures and demonstrates the prudence and cost effectiveness of the DSM programs. As a basis for this recommendation, Mr. Chernick states that Duke has failed to provide adequate evidence of the prudence of the 1991 expenditures. (Tr. Vol. 6, p. 151)

With regard to the load control programs, which include interruptible contracts, residential load control and standby generators, Mr. Chernick states that the Company has failed to adequately demonstrate that the costs of these programs are less than the cost of combustion turbine (CT) capacity. In addition, he states that the Company has failed to consider the effects of load control on the transmission and distribution system. Mr. Chernick also states that the fact that the load control programs are operated under Commission-approved tariffs does not mean that such expenditures are prudent. Finally, Mr. Chernick takes issue with what he states is the Company's failure to demonstrate the prudence of the evaluation and pilot programs and advertising. Witness Chernick recommends that all recovery of incremental DSM expenditures associated with these programs be deferred until the Company documents its expenditures and programs and demonstrates their prudence and cost effectiveness. (Tr. Vol. 6, pp. 146-151)

Consumer Advocate witness Miller testified that the \$3,911,000 of 1991 DSM incremental costs should not be included in rates because the Company has provided no support for these costs even though the Consumer Advocate requested supporting workpapers. Therefore, Mr. Miller states that these costs are not known and measurable. (Tr. Vol. 6, p. 153) In a letter to the Executive Director of the Commission dated October 18, 1991, the Company stated there was no specific request for DSM workpapers. The Company further stated that the \$3,911,000 was set forth in the Stipulation to which the Consumer Advocate agreed.

Duke, the Commission Staff, and the Consumer Advocate have submitted their Stipulation to the Commission for approval in this proceeding. No party has objected to approval of the Stipulation. The Commission has carefully reviewed the Stipulation and the testimony of the parties concerning the recovery of DSM costs. The Commission concludes that the Stipulation is reasonable and it is hereby approved. The Commission authorizes deferral accounting as requested in the Stipulation. The Company shall utilize Account No. 188, miscellaneous deferred debits, for the net deferral.

Although the Company, the Commission Staff, and the Consumer Advocate entered into a Stipulation, certain matters were left open for the Commission to decide. Paragraph 5 of the Stipulation provides for deferred accounting of up to \$6,475,000 of incremental DSM expenses incurred above the 1990 test year level of expenses. This \$6,475,000 was the amount included in the Company's original request for incremental DSM expenses. Paragraph 8 of the Stipulation provides that the Commission may include in rates additional DSM costs that are presented in Appendix 1 to the Stipulation and that it finds are actually and prudently incurred or prudently committed costs. Appendix 1 to the Stipulation identifies these costs as \$3,668,342 for Interruptible Service credits and \$242,472 for load control costs as discussed previously. Company witness Denton and Consumer Advocate witnesses Chernick and Miller have offered testimony on the prudence of the \$3,911,000 expenditures. Commission Staff witness Watts recommended allowance of the \$6,475,000 originally requested as an expense item and did not update the adjustment after the parties entered into the Stipulation.

The Commission has carefully considered the testimony and exhibits of each party. Based on the totality of evidence presented, the Commission finds that the \$3,911,000 of 1991 DSM costs have been actually and prudently incurred and should be included in rates in this proceeding. Mr. Denton also testified that

these 1991 costs are ongoing and will continue to escalate. The more costs deferred now will only result in higher rates for future customers and a disincentive for DSM expenditures. Although Mr. Chernick and Mr. Miller contend that these costs were unsupported, Mr. Denton's testimony clearly showed that these 1991 costs were actually incurred by the Company in 1991. Therefore, they are known and measurable. These amounts were agreed to by the parties to the Stipulation, and no party reserved the right to cross-examine the Company with regard to these costs. Although Consumer Advocate witness Miller stated that the Company did not provide support for the DSM costs, this claim is not supported by the facts. Having reviewed the evidence of all of the parties, the Commission finds without merit the Consumer Advocate's arguments that the \$3,911,000 were not known and measurable costs incurred by the Company.

With regard to prudence, the Commission finds that Mr. Denton's testimony with regard to the least-cost planning process and the fact that these DSM programs allow Duke to avoid capacity additions at a cost less than Duke could have built supply-side capacity is compelling on the question of prudence. Mr. Denton's extensive experience in the area of least-cost planning and DSM programs gives additional weight to his testimony on these matters. In addition, SCEUC witness Phillips testified specifically that the interruptible service credits included in these costs were too low. The Commission notes that the interruptible service credits and the load control credits, which comprise the \$3,911,000 amount, are included in the tariffs of the Company previously approved by this Commission. Therefore, the Commission finds that based on the evidence presented by the Company and Mr. Phillips, the \$3,911,000 incremental DSM costs are prudent and should be reflected in the cost of service in this proceeding.

The Consumer Advocate has challenged other features of Duke's DSM programs. The Commission has carefully reviewed this testimony and exhibits. The remaining objections and proposals, while not specifically addressed, must be rejected by the Commission. The Commission finds that the cost of DSM programs included in the test year and the incremental 1991 DSM costs are prudent and in the best interests of the customers.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NOS. 14, 15 AND 16

The evidence for these findings concerning the appropriate level of depreciation and decommissioning expense is contained in the testimony of Company witnesses Stimart, White, and LaGuardia, Commission Staff witness Watts, and Consumer Advocate witness LanzaIotta.

Duke adjusted depreciation expense to reflect its proposed depreciation rates and nuclear decommissioning expense. The Company based its proposed depreciation rates on a study prepared by Foster Associates, Inc. which is discussed in the testimony of Company witness Ronald White.

The following table sets forth the Company's current and proposed depreciation rates:

<u>Function</u>	<u>Present</u>	<u>Proposed</u>	<u>Difference</u>
Production			
Steam	3.57%	2.57%	(1.00%)
Nuclear			
Decommissioning	0.67%	1.61%	0.94%
Investment	3.33%	3.09%	(0.24%)
Total Nuclear	4.00%	4.70%	0.70%
Hydraulic	1.50%	1.98%	0.48%
Other	0.00%	0.74%	0.74%
Transmission	3.00%	2.57%	(0.43%)
Distribution	3.40%	3.59%	0.19%
General	5.48%	3.59%	(1.89%)
Total Utility	3.68%	3.69%	0.01%

This study also included the annual funding requirements of the nuclear decommissioning amounts based on the site specific decommissioning costs

studies included in Mr. LaGuardia's testimony. Commission Staff witness Watts testified that both the depreciation and decommissioning studies were reviewed by the Commission Staff and were just and reasonable and in line with the studies previously approved by this Commission. (Tr. Vol. 5, pp. 249-250)

Consumer Advocate witness Lanzalotta also reviewed the decommissioning study performed by Mr. LaGuardia. Mr. Lanzalotta testified that he did not propose any changes to the decommissioning costs developed by Mr. LaGuardia and noted that Mr. LaGuardia's costs were very much in line with the results of the Battelle decommissioning study funded by the Federal Government. (Tr. Vol. 5, p. 158)

The Company proposed in this proceeding to change its decommissioning expense for its nuclear reactors. Mr. Stimart testified that in the past a .67% rate for decommissioning was included in the Company's 4% nuclear depreciation rate. The Company proposed to change the decommissioning expense reflected in rates based upon current studies of the expected cost of nuclear decommissioning expense. The amounts in the study are based on the prompt dismantlement method of decommissioning because the Nuclear Regulatory Commission requires total funding of the contaminated components as of the date of termination of the operating license of each unit. In order to minimize costs, Duke decided to utilize a combination of internal and external funds to fund decommissioning. The Nuclear Regulatory Commission requires external funding for decommissioning the contaminated portion of each unit. The external fund amount is based on estimates contained in the site specific studies conducted by TLG Engineering, Inc. in 1989 and 1990 for each Duke nuclear unit. The external fund will be tax qualified to the extent possible under IRS rules and guidelines. The cost of decommissioning the rest of the plant will be funded internally and accrued based on a sinking fund methodology. (Tr. Vol. 2, pp. 147-148)

The study supporting the annual decommissioning expense is discussed in the testimony of Thomas LaGuardia. The following table sets forth the components of decommissioning expense included in cost of service in this proceeding:

(Dollars in Thousands)		<u>Annual Cost</u>	
<u>Unit</u>	<u>Total Cost*</u>	<u>System</u>	<u>S.C. Retail</u>
Oconee 1	\$164,792	\$10,491	\$ 2,722
Oconee 2	158,311	10,101	2,621
Oconee 3	202,855	12,218	3,171
Oconee ISFSI	21,750	1,325	344
McGuire 1	171,246	8,950	2,323
McGuire 2	186,265	9,294	2,412
Catawba 1	23,476	1,199	311
Catawba 2	26,163	1,271	330
	-----	-----	-----
Total	\$954,858 =====	\$54,849 =====	\$14,234 =====

*1990 Dollars

All parties agreed with the Company's adjustment to use 1% real return for nonqualified nuclear decommissioning trust investments. The only area of difference between the Company and the Consumer Advocate relates to the appropriate real after tax return on funds invested in qualified nuclear decommissioning trusts. Consumer Advocate witness Lanzalotta proposed that Duke assume a 1.5% real after tax return on these funds instead of a zero real return assumption. Lanzalotta based his recommendation on a study of selected bond yields during the past ten years. (Tr. Vol. 5, pp. 134-140) On cross-examination of Lanzalotta, Duke presented evidence that, based on data from 1960 to 1988, no class of assets allowable for investment by qualified decommissioning trusts earned a real return as reported in a 1991 volume of The Energy Journal. Another study in the same volume reports that a zero real return assumption is "the only realistic alternative" for qualified fund securities. Returns on nonqualified funds should not be expected to be

significantly higher unless the utility accepts an amount of risk which is not appropriate for such funds. (Tr. Vol. 5, pp. 174-175) (Hearing Exhibit No. 42)

Mr. Stimart also testified that the Company will reassess its decommissioning provision every four years in order to consider changes in the estimate of the cost of decommissioning (including the effect of any life extensions granted to the Company by the NRC) and how well the decommissioning fund has performed. (Tr. Vol. 4, pp. 74-76)

Based on all the evidence, the Commission finds the Company's depreciation rates reasonable and approves the rates. The Commission also finds that it is appropriate to adopt the Company's annual decommissioning provision to include in cost of service. The Commission further finds that the Company's assumption of a zero real return on funds invested in qualified nuclear decommissioning trusts is reasonable and well supported by the evidence.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 17

The evidence for this finding concerning the reasonable level of test-year electric operating expenses is found in the testimony and exhibits of Company witnesses Stimart, White and LaGuardia, Commission Staff witnesses Price and Watts, and Consumer Advocate witnesses Miller and Lanzalotta. The Company proposed total electric operating expense of \$837,757,000. ^{3/}

The differences between the Company, the Commission Staff, and Consumer Advocate are summarized below:

^{3/} Unless otherwise specified, all numbers throughout the remainder of this Order are allocated as South Carolina retail.

Electric Operating Expenses

	<u>Company</u>	<u>Commission Staff</u>	<u>Consumer Advocate</u>
O&M Expenses:			
Fuel Used in Electric Generation	\$197,625	\$196,592	\$196,592
Purchased Power and Net Interchange	141,680	141,680	130,192
Wages, Benefits, Materials, etc.	274,563	267,974	251,058
Depreciation and Amortization	121,499	116,895	119,855
General Taxes	48,755	42,122	46,091
Interest on Customer Deposits	468	474	468
Income Taxes	57,562	61,465	69,709
Amortization of ITC	(4,395)	(4,395)	(4,395)
	-----	-----	-----
Total Electric Operating Expenses	\$837,757 =====	\$822,807 =====	\$809,570 =====

O&M Expenses

The three categories of O&M expenses are fuel, purchased power and net interchange, and other O&M expenses, i.e., wages, benefits and materials. The Commission will discuss each area separately. The only difference between the Company, the Commission Staff, and Consumer Advocate with respect to fuel used in electric generation is related to the fuel expense derived from the Company's customer growth adjustment. This adjustment has been considered by the Commission previously. Having accepted the Company's proposed adjustment for customer growth, the Commission concludes that \$197,625,000 is the appropriate level of fuel expense for use in this proceeding.

The difference between the Company and the Consumer Advocate with respect to purchased power expense is the 400 MW Schedule J sale to Carolina Power & Light Company. The Commission's findings concerning this item were previously discussed under Finding of Fact No. 8 and will not be repeated here.

Other O&M Expenses (Wages, Benefits, Materials, etc.)

The difference between the Company, Commission Staff, and Consumer Advocate with respect to other O&M expenses is summarized below:

	(000's)		
	<u>Company</u>	<u>Commission Staff</u>	<u>Consumer Advocate</u>
Wages, Benefits, Materials, etc.	\$274,563	\$267,974	\$251,058
Difference		\$(6,589)	\$(23,505)

Analysis of Differences

1.	Disallowance of Test Year Growth and Inflation	\$(3,796)	\$(3,796)
2.	Post-Test Year Cost Increases:		
	NRC Fees		(1,048)
	Wage Increases	(4,287)	(4,287)
3.	Reclassification of Expenses as Nonelectric	(274)	
4.	Increase for Wage Rate Changes During the Test Year	--	(4,832)
5.	Removal of LES amortization	(616)	(574)
6.	Disallowance of Portion of Officers' Salaries	(180)	(15)
7.	Demand Side Management Costs	2,564	(3,911)
8.	Industry Association Dues	--	(469)
9.	Employee Moving Expense	--	(455)
10.	Advertising Expense	--	(110)
11.	Storm Damage Costs	--	(121)
12.	Lobbying Expense	--	(57)
13.	Implementation of SFAS 106	--	(3,830)
		-----	-----
	TOTAL DIFFERENCE	\$(6,589)	\$(23,505)

Item 1. Test Year Growth and Inflation

Company witness Stimart proposed adjustments for growth and inflation during the test year. The Company made an adjustment of \$859,000 to annualize O&M expenses other than fuel, purchased power, wages and benefits based on growth in customers during the test period. The Company also adjusted test period operating expenses, primarily operating materials and supplies, by \$2,937,000 to reflect the continual rise in unit costs which occurred during the test period. This adjustment annualizes the effect of inflation which took

place throughout the test period. (Tr. Vol. 2, p. 150) Both Commission Staff witness Price and Consumer Advocate witness Miller proposed to disallow adjustments for test year inflation as not being known and measurable. (Tr. Vol. 5, pp. 25, 79-80)

Witness Stimart testified that this type of adjustment is necessary to make test period O&M expenses representative of the expenses which will be incurred while the proposed rates are in effect. (Tr. Vol. 2, p. 150) However, neither the Commission Staff nor the Consumer Advocate witness disputed the fact that inflation occurred both before and during the test period, and is likely to continue for years to come.

The Commission finds that the Company's adjustments for test year inflation and growth are appropriate. The objective of the test period is to be representative of the conditions expected to exist during the period of time the rates determined in this proceeding will be in effect. Various adjustments to the historical test year are made to accomplish this objective. The Commission acknowledges that inflation is and has been a "fact of life" in the modern economic environment. The level of inflation can be reasonably measured, and the Company's calculation of these adjustments is reasonable. The Commission believes it is necessary to reflect cost escalation in cost of service in order to present a representative picture of the conditions expected to exist during the time the rates approved in this Order will be in effect.

Item 2. Post-Test Year Cost Increases

The Commission's findings concerning this issue have already been discussed under Finding of Fact No. 10 and will not be repeated here.

Item 3. Reclassification of Expense as Nonelectric

Commission Staff witness Price eliminated certain actual cost of service items and reclassified them as costs to be borne by the Company's stockholders. Those costs include:

	(000's)
Payments to EEI for Media	
Communications	\$ 64
Dues and Subscriptions	99
General Advertising	40
Recreation Expense	71

TOTAL	\$274
	=====

As explanation for the adjustment, witness Price testified that the Commission has traditionally held that these types of expenses should not be ratepayer supported since they are not necessary to provide electric service. (Tr. Vol. 5, p. 80)

The Commission has adopted the Uniform System of Accounts which provides for costs of this nature to be supported by ratepayers as an electric expense. The Commission therefore rejects witness Price's adjustment. These costs are a necessary part of doing business and they are recorded in the proper accounts according to the Uniform System of Accounts. (Tr. Vol. 4, p. 87)

Item 4. Increase in Wage Rate and Fringe Benefits

The Commission's findings concerning this issue have already been discussed in Finding of Fact No. 9 and will not be repeated here.

Item 5. Louisiana Energy Services

The Company has included in its total Company per book figures \$2,209,000 for the amortization of the Company's investment in Louisiana Energy Services (LES). The Company seeks recovery from South Carolina ratepayers of \$616,000 in this case, which is South Carolina's portion of the amortization. Duke has

classified LES expenditures as research and development (R&D). (Tr. Vol. 1, p. 63)

LES is a partnership between a Duke subsidiary and four other entities. LES is exploring the construction and licensing of a uranium enrichment services technology that has not previously been utilized or licensed in this country. Presently the only provider of uranium enrichment services in the United States is the Department of Energy (DOE). (Tr. Vol. 1, pp. 63-65)

Mr. Lee testified that participation in LES was necessary in order for the project to be viable. The project would supply needed competition to the uranium enrichment services market which will lower the price of uranium enrichment services. Mr. Lee testified that the Department of Energy price is high compared to the costs of uranium enrichment services utilizing centrifuge technology such as LES would employ. In addition, Mr. Lee testified that Duke would receive a favorable uranium enrichment services contract if the LES project was successful. Finally, Mr. Lee testified that as a result of the potential competition provided by LES the Department of Energy had already lowered its uranium enrichment services prices. These lower prices more than offset Duke's total expenditures in connection with LES. (Tr. Vol. 1, pp. 63-65)

Commission witness Price recommended that LES costs be removed from the cost of service for South Carolina ratepayers for several reasons including the almost complete amortization of the LES costs as of the date of this hearing, the fact that the construction and operating licenses were not docketed by the NRC until May 15, 1991, the likelihood of no response from the NRC until late 1991, the uncertainty of the decision to proceed with the project unless reasonable financing is obtained, the possibility of reduced prices from the DOE with competitive pressure, Duke's lack of experience with this technology,

and the reduction in investment if Duke sells its interest in LES.
(Tr. Vol. 5, pp. 85-86)

Consumer Advocate witness Miller recommended that LES costs be removed from test year operating expenses and set up in a deferred account because of the contingencies surrounding licensing, the decision to proceed to construction, and Duke's plans to sell or redeem its investment at the end of the venture period. (Tr. Vol. 5, p. 16)

The Commission finds that it is appropriate in this proceeding to amortize LES expenditures as proposed by the Company. No party has contested that these expenditures have been reasonably and prudently incurred and are for the benefit of Duke's customers. Furthermore, no party has challenged the research and development nature of these expenditures. There is no reason to treat LES expenditures any differently than any other research and development costs. The points outlined by Mr. Price further indicate the R&D nature of these expenditures as an attempt by the Company to seek innovative ways to supply electricity at least cost. Indeed, the evidence in this case indicates that Duke's present customers already are receiving benefits from LES expenditures because of the reduction of Department of Energy prices. The Commission continues to encourage R&D expenditures especially when there exists a strong potential to benefit electric customers.

Item 6. Officers' Salaries

Both Commission Staff witness Price and Consumer Advocate witness Miller proposed to eliminate the increases in officers' salaries for the test year in accordance with established Commission policy. Mr. Stimart testified that officers' salaries are already allocated to nonelectric operations. First, salaries are allocated to the extent officers can identify time spent on nonelectric business. Second, salaries are allocated to nonelectric through the application of the Massachusetts formula. (Tr. Vol. 4, p. 40)

Based on this evidence, the Commission determines a further allocation of officers' salaries is not required as proposed by Mr. Price and Mr. Miller.

Item 7. Demand-Side Management Stipulation

The Evidence and Conclusions for this item have previously been discussed under Findings of Fact Nos. 12 and 13. The Commission will not repeat that discussion here.

Item 8. Industry Association Dues

Duke included in cost of service dues for Edison Electric Institute (EEI) and the United States Council for Energy Awareness (USCEA). Consumer Advocate witness Miller proposed the elimination of these dues from test year operation and maintenance expenses based on his belief that these two associations' activities do not provide a direct and primary benefit to ratepayers. (Tr. Vol. 5, pp. 38, 44)

The Commission notes that EEI is recognized as a central source of authoritative information on electric energy and provides factual information to congressional committees and regulatory agencies. EEI's efforts have saved electric companies and their ratepayers millions of dollars thus directly benefitting South Carolina retail customers. Mr. Stimart testified that a portion of the EEI dues have already been recorded as a nonelectric expense. Each year EEI tells each of its member companies the portion of EEI dues not related to electric operations. The amount indicated in this letter is the result of audits and negotiations between the NARUC management and EEI. (Tr. Vol. 4, p. 59) As a result, EEI expenses for lobbying and certain media activities are not accounted for in electric utility operations.

The USCEA's activities are primarily related to nuclear energy. Its activities include the examination of generic issues related to nuclear power and the collection and publication of statistical and other information related to nuclear power. Duke and its customers rely heavily on nuclear power for the

reliable delivery of electricity. It clearly benefits the Company's customers to have a reliable source of information in the constantly changing nuclear environment. Based on the foregoing discussion, the Commission finds that witness Miller's adjustments for EEI and USCEA dues are inappropriate.

Item 9. Employee Moving Expense

Witness Miller proposed to adjust the test year costs associated with employee moves and relocations to reflect the average employee moving expense incurred over the 5-year period from 1986-1990 because of fluctuations in moving expense from year to year. Witness Miller explained "it is important that any abnormally low or high expenditure be normalized for rate making purposes in order that the test year expenditure will be as representative as possible of the expenses that are anticipated to be incurred during the time the rates will be in effect." (Tr. Vol. 5, p. 32) Witness Stimart testified on cross-examination that with the ongoing aggressive assessment of costs, the movement of the Company's workforce experienced in 1990 should continue at an even higher rate. He concludes that 1990 costs for employee moving expense are representative of the upcoming years. (Tr. Vol. 4, pp. 81 & 82) The Commission finds that witness Miller's proposed adjustment is not supported by any evidence indicating that the 1990 expense level is unrepresentatively high.

Item 10. Advertising Expense

Witness Miller proposed to exclude advertising expense associated with ads which he alleged were of a goodwill or image building nature, ads which are purportedly contributions to various organizations, and a single billing error in the month of December for which the Company received a credit for \$135,857 in January, 1991. Mr. Miller contended that these advertising expenses do not provide a direct and primary benefit to the ratepayers. (Tr. Vol. 5, pp. 39-41) Mr. Stimart testified that these costs are a necessary part of doing business

and have been recorded in the proper electric operating expense account. (Tr. Vol. 4, p. 87)

This Commission has adopted the FERC Uniform System of Accounts for recording utility transactions. These advertising costs were recorded as an electric operating expense as prescribed by this accounting system and as such are an appropriate expense for cost of service.

Item 11. Storm Damage Costs

The Commission approved deferred accounting of storm damage costs incurred in 1989 with a five-year amortization. In 1989, Duke experienced two of the most devastating storms in its history, the largest being Hurricane Hugo.

Consumer Advocate witness Miller proposed to adjust the annual amortization of deferred storm damage costs by removing 10.2% of the amortization because the deferred costs include certain labor and associated benefits that Mr. Miller alleges were already included in base rates. (Tr. Vol. 5, pp. 50-51)

The Commission notes that witness Miller incorrectly calculated his adjustment to remove a certain amount of labor by using a jurisdictional allocation factor. The Company's cost of service for South Carolina retail includes storm damage amortization expense on a direct charge basis. Witness Miller acknowledged on cross-examination by the Company that use of a jurisdictional allocation factor is inappropriate when expenses have been directly assigned. (Tr. Vol. 5, p. 64)

Based on the evidence, the Commission finds that the Company's treatment of storm damage expense is appropriate.

Item 12. Lobbying

Witness Miller recommended that 50% of all Public Affairs Department expenses be excluded from test year operating expenses and charged below the line as lobbying. Miller contended that the portion of the expense charged below the line by the Company is not representative of the lobbying-related

efforts conducted by employees in the Company's Public Affairs Department.
(Tr. Vol. 5, pp. 42-43)

Mr. Stimart testified that the Company charges employee wages and expenses to nonelectric while they perform their job with respect to lobbying.
(Tr. Vol. 4, p. 53) This is in accordance with the Uniform System of Accounts. He further testified that the amount charged to nonelectric is greater than it should be because the Company assumes the employee is lobbying 100% of the time while the employee is in the state capital during legislative session.
(Tr. Vol. 4, p. 54)

The Commission disagrees with the Consumer Advocate's lobbying adjustment. Legislation can materially affect utility costs. The Clean Air Act is an example. The Consumer Advocate would eliminate all costs incurred in the Company's attempt to "influence the passage, defeat or amendment of legislation of interest to the Company." The Company has already allocated costs to nonelectric operations for lobbying.

Item 13. Implementation of SFAS 106

The Commission's findings concerning this issue have been discussed under Finding of Fact No. 11 and will not be repeated here.

Depreciation and Amortization

The Company proposes depreciation and amortization expense of \$121,499,000. The differences between the Company, Commission Staff, and Consumer Advocate are summarized below:

	(000's)		
	<u>Company</u>	<u>Commission Staff</u>	<u>Consumer Advocate</u>
Depreciation and Amortization	\$121,499	\$116,895	\$119,855
Difference		\$(4,604)	\$(1,644)

Analysis of Differences

1. Bad Creek Depreciation	\$ (109)	\$ 270
2. Bad Creek Deferred Cost	(4,915)	955
3. Decommissioning Expense	--	(2,869)
4. Amortization of Coley Creek Costs	--	*
5. Amortization of Catawba Costs	420	--
	-----	-----
Total Difference	\$(4,604)	\$ (1,644)
	=====	=====

* Adjustment recommended but not reflected

Item 1. Bad Creek Depreciation

The first area of difference relates to the amount of Bad Creek dollars included in electric plant in service. The Company included all four units; however, Commission witness Price recommended that only the Bad Creek balance through August 31, 1991, be included in gross plant because the Commission Staff had not audited the Company's updated numbers. Because of the difference in plant balance, the Commission Staff and the Company recommended different amounts for depreciation expenses.

Consumer Advocate witness Lanzalotta recommended disallowance of operating costs related to Units 3 and 4 as excess capacity but did not reflect this reduction in any of his exhibits or those of Consumer Advocate witness Miller.

The difference between the Company and the Consumer Advocate results from witness Miller not adjusting his exhibits to consider the Company's update of Bad Creek Costs.

Based on the evidence, the Commission finds that it is appropriate to include \$5,182,000 of depreciation related to Bad Creek in cost of service as proposed by the Company.

Item 2. Bad Creek Deferred Cost

	(000's)	
	<u>Company</u>	<u>Commission Staff</u>
	\$6,649	\$1,734
Difference		\$(4,915)

This difference results from the Commission Staff's recommendation of a ten-year amortization of the deferred cost related to the commercial operation of Bad Creek. The Company included in cost of service a three-year amortization of these costs together with the carrying cost on the unamortized cost during this three-year period. (Tr. Vol. 2, p. 151) The Commission Staff recommends the unamortized balance be included in rate base in order to allow the Company to recover the carrying cost of the unamortized balance during their recommended ten-year amortization period.

Witness Miller made no adjustment to the Company's proposed adjustment (Tr. Vol. 5, p. 62) nor did witness Miller update his exhibits to reflect the lower deferred costs as updated by the Company.

The Commission takes notice of its approval of deferral accounting for the start-up costs of Bad Creek from the commercial operation dates to the effective date of new rates resulting from this proceeding. In order to reduce the carrying cost South Carolina customers pay, the Commission finds the Company's adjustment appropriate.

Item 3. Decommissioning Expense

The Commission's findings concerning this issue have already been discussed under Finding of Fact Nos. 14, 15, and 16 and will not be repeated.

Item 4. Amortization of Coley Creek Costs

Duke proposed amortization over five years of the abandoned Coley Creek costs. The Commission approved the Company's accounting treatment of Coley Creek costs in a letter to Company witness Stimart dated October 29, 1990, reserving further review in this proceeding. Consumer Advocate witness Miller recommended amortization of these costs over a ten-year period. The Commission Staff accepted the Company's five-year write off. (Tr. Vol. 5, p. 92) Mr. Stimart testified that this Commission has tended to amortize items of this nature over varying periods of time depending on the magnitude of the dollars to be amortized. (Tr. Vol. 4, p. 44)

The Commission finds that the Company's accounting treatment of Coley Creek costs is appropriate and approves a five-year amortization period.

Item 5. Amortization of Catawba Costs

The Commission Staff included in cost of service the annual amortization of the Catawba deferred costs. This results from prior Commission decisions to amortize the reasonable and prudently incurred Catawba deferred costs over a ten-year period. No other evidence was submitted by the parties.

Based on the evidence, the Commission finds that the appropriate level of expense for depreciation and amortization is \$121,499,000.

General Taxes

The Company proposed \$48,755,000 as the appropriate level of general taxes. The differences between the Company, Commission Staff, and Consumer Advocate are summarized below:

(000's)

	<u>Company</u>	<u>Commission Staff</u>	<u>Consumer Advocate</u>
General Taxes	\$48,755	\$42,122	\$46,091
Difference		\$(6,633)	\$(2,664)

Analysis of Differences

1. Bad Creek Property Tax	(38)	94
2. Customer Growth Adjustment	(26)	(26)
3. Reconnect Fee	1	--
4. Payroll Tax	--	(419)
5. Franchise Fee	(6,570)	--
6. Property Tax	--	(2,313)
	-----	-----
TOTAL DIFFERENCE	\$(6,633)	\$(2,664)

Items 1-4. Bad Creek Property Tax, Customer Growth Adjustment, Reconnect Fee
and Payroll Tax

Based on the Commission's previous determinations as to the appropriate adjustments for Bad Creek investment, customer growth, the Company's proposed increase in reconnect fees and increased wage rates, the Commission finds that the general tax adjustments related to these items proposed by the Commission Staff and Consumer Advocate are not appropriate.

Item 5. Franchise Fees

Commission Staff witness Watts recommended removal of franchise fees/municipal license fees as part of the Cost of Service Study, listed in General Taxes as Revenue Related Taxes. (Tr. Vol. 5, p. 235) Mr. Watts cited the Commission's decision in City of Spartanburg v. Public Service Commission of South Carolina, 281 S.C. 223, 314 S.E.2d 599 (1984) as support for his recommendation. These fees, imposed by certain municipalities, would only be charged to those customers living within the corporate limits of that municipality, therefore not affecting all ratepayers.

For purposes of the rates adopted in this Order, the Commission finds that the franchise fees/municipal license fees are to be included in base rates.

The Company shall remove these fees beginning in January, 1992. The Commission requires the Company to give notice to all customers concerning the removal of these fees from the cost of service. After this notice period, the Commission finds it appropriate to reduce base rates for removal of franchise fees/municipal license fees and include these fees as a separate line component on affected customers' bills effective with the first billing cycle in January, 1992.

Item 6. Property Taxes

The Company annualized test period property taxes on plant in service at December 31, 1990. Witness Stimart testified that property taxes for calendar year 1990 were assessed based upon property balances at the end of 1989. Likewise, property taxes for calendar year 1991 will be assessed based upon property balances at the end of 1990. This adjustment increases property tax expense in the test period to the year-end level of investment. The Company's calculation was based upon actual historically experienced changes in rates. (Tr. Vol. 2, pp. 151-152) Witness Price supported the Company's adjustment. Witness Miller supported the concept of annualizing property taxes to reflect the taxes related to property in service at the end of the test year. However, Miller alleged that the Company's proposed adjustment was not known and measurable because it was an estimate. (Tr. Vol. 5, p. 45)

The Commission determines that the Company's adjustment to annualize property taxes is appropriate and because it is based on end of year actual plant balances, it is based on known and measurable standards.

The Commission finds that the appropriate level of expense for general taxes is \$48,755,000.

Interest on Customer Deposits

The Company proposed that the actual test year level of interest on customer deposits of \$468,000 be reflected in the cost of service. Commission Staff

witness Price proposed to annualize interest on customer deposits. (Tr. Vol. 5, p. 86) The Commission is not persuaded by the evidence that it is necessary to make any adjustment to the actual test year level of interest on customer deposits. Therefore, the Commission finds that \$468,000 is the appropriate level of interest on customer deposits to include in the cost of service.

Income Taxes

The positions of the Company, Commission Staff, and Consumer Advocate regarding income taxes are summarized below:

(000's)

	<u>Company</u>	<u>Commission Staff</u>	<u>Consumer Advocate</u>
Income Taxes	\$57,562	\$61,465	\$69,709
Difference		\$ 3,903	\$12,147

The differences in the parties' positions regarding the appropriate level of income taxes are due to the different levels of operating revenues and operating expenses proposed by each party as well as the rate bases proposed by each party. Based on the Commission's previous decisions regarding each of these items, the Commission finds that the appropriate level of expense for income taxes is \$57,562,000.

Amortization of ITC

All parties agreed on the Company's proposed level of (\$4,395,000) for amortization of ITC, which the Commission determines is the appropriate level of expense.

Based on the entire record in this proceeding, the Commission concludes that the appropriate level of operating revenue deductions for use in this proceeding is \$837,757,000, calculated as follows:

Operating Revenue Deductions
(000's)

O&M Expenses:

Fuel	\$ 197,625
Purchased Power and Net Interchange	141,680
Wages, Benefits & Materials	274,563
Depreciation and Amortization	121,499
General Taxes	48,755
Interest on Customer Deposits	468
Income Taxes	57,562
Amortization of ITC	(4,395)

Total Operating Revenue Deductions	\$ 837,757
	=====

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 18

The evidence concerning the appropriate capital structure is presented in the testimony and exhibits of Company witnesses Lee, Osborne and Ibbotson, Commission Staff witness Spearman and Consumer Advocate witness Legler. In its Application, the Company utilized its actual per book capital structure as of December 31, 1990, consisting of 49.82% common equity, 9.68% preferred stock and 40.50% long-term debt.

Both Mr. Lee and Mr. Osborne testified that maintaining the Company's AA bond rating is a major financial goal of the Company and a key to the retention of the Company's credit worthiness and financial strength so that the Company can obtain new financing when necessary, in both good and bad capital markets. They testified that one of the most important determinants of the Company's bond rating is its coverage of fixed charges, and they pointed out that Duke's SEC interest coverage ratio is currently lower than it has been at any time since 1983. (Tr. Vol. 1, p. 56) (Tr. Vol. 2, p. 48) Mr. Osborne testified that maintaining the capital structure of the Company at approximately its present levels of common equity and long-term debt is necessary in order to enable the Company to maintain a fixed charges coverage ratio at a level necessary to retain its AA bond rating. He testified that the importance of maintaining

Duke's credit quality is shown by what occurred in the mid-1970's when Duke was unable to finance at all in difficult capital markets after its bond rating had dropped to a single A. This resulted in Duke having to stop work at certain construction projects which resulted in increased costs of those projects. He also pointed out that certain rating agencies have expressed concern about the negative trend in Duke's fixed charges coverage and have emphasized the importance of the outcome of this rate case on Duke's credit since Duke is approaching the lower limits of the AA rating. (Tr. Vol. 2, pp. 46-53)

Dr. Ibbotson also testified that, in his opinion, the capital structure of Duke as proposed in this proceeding reflects appropriate financial management and should be maintained. Dr. Ibbotson also stated that an increase in the amount of debt in Duke's capital structure would leave the overall weighted cost of capital unchanged in the long run because while the debt weight would increase, both debt and equity costs of capital would also increase. He pointed out that today's market is understandably very wary of companies with high leverage. (Tr. Vol. 3, pp. 27-29)

Consumer Advocate witness Legler noted that although the Company's equity ratio may appear to be high on the surface, the equity ratio closely approximates the average equity ratio for AA rated electric utilities as reported by Value Line. Legler also noted that the 1990 equity ratio reflects a slight decline from the equity ratio in 1988 and 1989. (Tr. Vol. 6, p. 10)

Having carefully considered all of the evidence, it is our judgment that Duke's actual capital structure, which it is proposing, is within reasonable bounds under all of the circumstances. The Commission finds and concludes that the appropriate capital structure for Duke for use in this proceeding is as follows:

Long-Term Debt	40.50%
Preferred Stock	9.68%
Common Equity	49.82%

	100.00%
	=====

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 19

The evidence concerning the proper embedded cost rates for long-term debt and preferred stock is presented in the testimony and exhibits of Company witnesses Lee, Osborne, and Ibbotson, Commission Staff witness Spearman and Consumer Advocate witness Legler.

The positions of the Company, the Commission Staff and the Consumer Advocate with respect to the embedded cost rates for long-term debt and preferred stock are as follows:

	<u>Company</u>	<u>Commission Staff</u>	<u>Consumer Advocate</u>
Long-Term Debt	8.78%	8.67%	8.78%
Preferred Stock	7.74%	7.53%	7.74%

The embedded cost rates proposed by the Commission Staff reflect an updating to June 30, 1991.(Hearing Exhibit 37, Accounting Exhibit A-5)

Upon review of the evidence, the Commission finds and concludes that the embedded cost rates as of December 31, 1990, as proposed by the Company and agreed to by the Consumer Advocate which are synchronized with the capital structure as of December 31, 1990, are appropriate for use herein. Accordingly, the Commission finds that the appropriate embedded cost rates for use in this proceeding are as follows:

	<u>Embedded Cost Rate</u>
Long-Term Debt	8.78%
Preferred Stock	7.74%

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 20

The evidence for this finding concerning the appropriate return on common equity is found in the testimony and exhibits of Company witness Ibbotson, Commission Staff witness Spearman, and Consumer Advocate witness Legler. A principal issue in any ratemaking determination involves the proper earnings to be allowed on the common equity investment of the regulated utility. In this proceeding, the Commission heard the expert testimony of three witnesses relating to the fair and reasonable rate of return on common equity for the Company.

This Commission has frequently stated that it adheres to no particular theory or methodology for the determination of a fair rate of return on common equity. (See, e.g., Order No. 85-841, at p. 56) Rather, we perceive our function as that of engaging in a careful and reasoned analysis of the evidence in a practical context. The record of the instant proceeding illustrates the use of several fundamental methods for the determination of the cost of equity capital by the expert witnesses for the Company, the Consumer Advocate, and the Commission Staff. Those methods include the discounted cash flow ("DCF") method, the capital asset pricing model ("CAPM"), the risk premium method, and the comparable earnings approach.

The evidence presented by the witnesses demonstrated an approach to their respective investigations within the parameters of the language of the United States Supreme Court in its decision in Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944), at 603:

[T]he return to the equity owner should be commensurate with the return on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

While the independent studies of each witness, either implicitly or explicitly, commenced with those standards, the respective methods employed produced quite different results, presenting the Commission with recommendations ranging from 11.5% to 13.17%. The Commission must weigh the opinions of the expert financial witnesses as to the expectations of investors or the opportunity costs of equity capital in conjunction with the tangible facts of the entire record of the proceeding, including the observable financial condition of the Company. Southern Bell Telephone & Telegraph Co. v. Public Service Commission of South Carolina, 270 S.C. 590, 244 S.E.2d 278 at 282 (1978). In the final analysis, we must determine the credibility and probative value of the testimony of the expert financial witnesses and use our judgment to evaluate this evidence in regard to the cost of common equity.

Furthermore, the Commission cannot determine the fair and reasonable return on common equity for the Company in isolation. Rather, the Commission must carefully consider a variety of relevant factors, including identifiable trends in the market relating to the costs of labor, materials, capital, interest rates and inflation rates; comparisons of past earnings with present earnings and prospective earnings; the prices for which the Company's service must be rendered; the returns of other enterprises and the reasonable opportunities for investment therein; the financial policy and capital structure of the Company and its ability to attract capital; the demonstrable competency and efficiency of the Company's management; the inherent protection against destructive competition afforded the Company through the operation of the regulatory process and the competitive forces that are coming into being that have never been experienced before; general economic conditions; and the public demand for growth and expansion which is required to evaluate the construction program for the foreseeable future. The Commission must strike the balance among these complex and interrelated factors in the context of the record herein.

In its determination of a fair and reasonable rate of return, the Commission maintains the ultimate responsibility of setting the rates to be charged for the utility services provided by the Company. The exercise of that responsibility involves the balancing of the interests of the consumer and the investor. The Commission must gravely balance the interests of the consumer in regard to the price of utility service with the interests of the same consumer in regard to the reliability and adequacy of the supply of energy. The Commission has maintained these interests paramount throughout this proceeding. The Commission's determinations of the Company's revenue requirements and of the proper allocation of those revenues within the approved rate structure embodied in this Order reflect fairly and equitably the interests of those consumers expressed in the record before us.

Duke presented Dr. Roger G. Ibbotson, the Consumer Advocate presented Dr. John B. Legler, and the Commission Staff presented Dr. James E. Spearman to testify on the rate of return to be applied to Duke's common equity. These witnesses updated their prefiled testimony to reflect changes in the capital markets which had occurred after preparation of their testimony. Dr. Ibbotson's testimony was filed on June 24, 1991, and was prepared in February of 1991 and used data current at that time. Dr. Ibbotson updated his prefiled testimony in September 1991 and used data current at that time. Dr. Spearman's testimony was filed on September 23, 1991, and was based on data current as of that date. Dr. Legler's testimony was filed on September 9, 1991, and used data current as of that date. Dr. Legler updated his testimony on September 25, 1991, and used current data as of that date.

A summary of the respective recommended returns on common equity, as updated, is as follows:

<u>PARTY</u>	<u>WITNESS</u>	<u>METHOD</u>	<u>RETURN ON COMMON EQUITY</u>
Company	Dr. Ibbotson	CAPM	13.17%
Staff	Dr. Spearman	CAPM/DCF	12.0% to 12.5%
Consumer Advocate	Dr. Legler	DCF/CAPM	11.5% to 12.5%

The Company's witness, Dr. Ibbotson, recommended in his prefiled testimony a return on common equity of 13.75%. Prior to the hearing, Dr. Ibbotson updated his recommended return on common equity to 13.17% because of changes in market conditions occurring between the time he prepared his testimony and the time of the hearing. (Tr. Vol. 3, p. 35)

Dr. Roger W. Ibbotson is Professor of Finance at Yale University and President of Ibbotson Associates, a Chicago-based financial consulting firm. Dr. Ibbotson estimated Duke's cost of equity using the Capital Asset Pricing Model (CAPM) which defines the cost of equity to be equal to the sum of the rate of return on a riskless security plus an equity risk premium, which is an additional return for the risk of holding the particular security (in this case Duke Power's common stock). The risk premium is estimated by multiplying the beta (a measure of risk) of Duke's common stock by the additional return which an investor expects to realize by investing in a diversified market portfolio rather than in the riskless security. (Tr. Vol. 3, p. 12) For the riskless security Dr. Ibbotson used an average of recent yields on 20-year U. S. Treasury bonds, selected mainly because that maturity matches more nearly the horizon over which equity capital is committed to Duke Power Company. For his estimate of the expected equity risk premium of the market as a whole, Dr. Ibbotson used 7.1%, which was developed in Ibbotson Associates' Stocks, Bonds, Bills and Inflation 1991 Yearbook, and is the arithmetic average of the differences, or spreads, between the annual total returns on the stock market (represented by the S&P 500), and the average annual income returns on 20-year treasury bonds, over the period 1926 through 1990. (Tr. Vol. 3, p. 25) Dr. Ibbotson explained

that this period was used because it is the longest period for which there is good quality data, and that the use of the longest available period yields the best estimate of the risk premium because the risk premium is a random variable and therefore the accuracy of the estimate increases with the period over which it is measured. (Tr. Vol. 3, pp. 15-18) Using a risk-free rate of 8.55%, a beta for Duke of 0.65 and a market risk premium of 7.1%, Dr. Ibbotson concluded that the current required rate of return on equity for Duke Power Company is 13.17%, which includes no allowance for down markets or flotation costs. (Tr. Vol. 3, pp. 26, 31 & 32)

The Commission Staff's witness, Dr. Spearman, used two independent methods -- the Capital Asset Pricing Model (CAPM) and the Discounted Cash Flow Method (DCF) -- in arriving at his estimates of the cost of capital. Based upon these two methods, he recommended a rate of return on common equity in the range of 12.0% to 12.5%. (Tr. Vol. 5, p. 295) In his DCF analysis, Dr. Spearman utilized a dividend rate of \$1.72 per share and a stock price of \$29.25 to derive a yield of 4.9% and a growth rate of 5% to 6%. Dr. Spearman's DCF analysis which included several variations resulted in an expected cost of common equity of 10.34% to 12.01%. (Tr. Vol. 5, pp. 275)

Dr. Spearman's prefiled testimony indicated a rate of return in the range of 10.59% to 12.50% based on his analysis of the CAPM method. (Tr. Vol. 5, p. 293) Dr. Spearman qualified his rate of return testimony as being perhaps on the low side. He stated that a cost of equity approaching the high end of the range requires that the market returns maintain their long-term average and that the betas "may be understated". (Tr. Vol. 5, pp. 294-295)

The Consumer Advocate's witness, Dr. Legler, primarily used the DCF methodology. Based on a stock price calculated by averaging the prices of Duke stock for June - August, 1991, of \$28.88 per share, dividends of \$1.72 per share, and a growth rate of 5.0% to 6.0%, Dr. Legler arrived at a range of cost

of equity capital for Duke Power Company using the DCF method of 11.0% to 12.0%. Dr. Legler's risk premium method produced a rate of return range of 11.2% to 11.5%. His CAPM method indicated a range of 10.3% to 12.5%. In his prefiled testimony, Dr. Legler's recommended rate of return produced a range of 11.7% to 12.8%. From this he suggested a return on common equity of 12.25%. In his updated testimony his range was 11.5% to 12.5% with a midpoint of 12%, his final recommended rate of return on equity capital. (Tr. Vol. 6, pp. 48-49, 53)

The Commission has been presented with differing testimony and evidence with respect to the cost of common equity. As that is the case, it is therefore our responsibility to weigh and evaluate such evidence and reach a decision after applying our expertise and reasoned judgment. The Commission observes that there are a number of valid approaches to the cost of equity determination, but that, in the final analysis, the results of all these approaches are influenced by the judgments and assumptions of the witnesses. In this case, judgment plays a critical role, for the disparity between the recommendations of the witnesses in their use of the DCF method is not attributable to any fundamental difference in methodology, but rather to legitimate differences of opinion as to what data provides the best evidence of the cost of equity. This Commission must ultimately use its own judgment in evaluating the evidence presented by the witnesses.

It therefore becomes the Commission's responsibility to set a fair and reasonable rate of return on common equity from which can be derived the lawful rates for the Company for its retail electric operations. This responsibility must be discharged in accordance with statutory and judicial standards, and based upon the numerous factors identified herein, and applied in accordance with the informed judgment of the Commission.

In light of all the relevant evidence in the record of this proceeding, the Commission is of the opinion, and so finds, that a fair and proper range of

return on common equity is from 12.5% to 13.17%. The Commission further finds that a fair and proper return on common equity of 13.17% provides the opportunity to produce additional annual revenues of \$68,384,000 for the Company's South Carolina retail electric operations, which the Commission finds fair and reasonable.

The Commission considers 13.17% to represent the reasonable expectation for the equity owner, and therefore, consistent with the standards of the Hope decision. The return found fair and reasonable is sufficient to protect the financial integrity of the Company, to preserve the property of the investor, and to permit the Company to continue to provide reliable service to present and future customers at reasonable rates.

The Commission is influenced that 13.17% is a reasonable rate of return for three (3) additional reasons. First, in the second quarter of this year regulatory Commissions have granted other electric utilities rates of return averaging 12.9%. Included in that figure is the 13% and 13.5% rates of return granted to Virginia Power and Appalachian Power by the Virginia Corporation Commission. (Tr. Vol. 5, p. 302) Second, the electric utilities with a double A bond rating earned, on average, in excess of 13% on equity over the last three (3) years. (Tr. Vol. 5, p. 304) These are comparable companies with which Duke must compete for capital. Third, this Commission granted Duke a 13% rate of return in its last general rate increase case. When that rate order was granted, the rates of return recommended by the Commission's Staff and the Consumer Advocate did not differ a great deal from the recommendations in this case. Since 1986, inflation has increased and Duke's interest coverage has decreased. (Tr. Vol. 2, p. 48) We believe that interest coverage is a significant financial indicator. Fixing a lower rate of return would likely cause a further decline, which this Commission does not believe should occur.

In arriving at a rate of return herein, the Commission is concerned only with the return to be earned on the common equity allocated to that portion of the Company's operations subject to the Commission's jurisdiction in this proceeding.

An important function of ratemaking is the determination of the overall rate of return which the utility should be granted. This Commission has utilized the following definition of "rate of return" in previous decisions, and continues to do so in this proceeding:

For regulatory purposes, the rate of return is the amount of money earned by a regulated company, over and above operating costs, expressed as a percentage of the rate base. In other words, the rate of return includes interest on long-term debt, dividends on preferred stock, the earnings on common stock and surplus. As Garfield and Lovejoy have put it "the return is that money earned from operations which is available for distribution among the various classes of contributors of money capital. In the case of common stockholders, part of their share may be retained as surplus."

Phillips, The Economics of Regulation, pp. 260-261 (1969).

The amount of revenue permitted to be earned by the Company through its rate structure depends upon the rate base and the allowed rate of return on the rate base. As discussed in the preceding section of this Order, the primary issue between the regulated utility and regulatory body most frequently involves the determination of a reasonable return on common equity, since the other components of the overall rate of return, i.e., dividends on preferred stock and cost of debt, are fixed. Although the determination of the return on common equity provides necessary component from which the rate of return on rate base can be derived, the overall rate of return, as set by this Commission, must be fair and reasonable.

The United States Supreme Court's landmark decision in Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679 (1923), delineated general guidelines for determining the fair rate of return in utility regulation. In the Bluefield decision, the Court stated:

What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risk and uncertainties; but it has no constitutional rights to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business generally.

262 U.S. at 692-693.

We held in Federal Power Commission v. Natural Gas Pipeline Co....that the Commission was not bound to the use of any single formula or combination of formulae in determining its rates. Its ratemaking function, moreover involves the making of 'pragmatic adjustments' (cite omitted)...Under the statutory standard of 'just and reasonable' it is the result reached, not the method employed which is controlling (cites omitted).... The ratemaking process under the Act, i.e., the fixing of 'just and reasonable' rates involves a balancing of the investor and the consumer interests. Thus we stated in the Natural Gas Pipeline Co. case, that regulation does not insure that the business shall produce net revenues. (cite omitted) But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. (cite omitted.) By that standard the return to the equity owner should be commensurate with returns on investments in other

enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

320 U.S. at 602-603

The vitality of these decisions has not been eroded, as indicated by the language of the more recent decision of the Supreme Court in IN RE: Permian Basin Area Rate Cases, 390 U.S. 747 (1968). This Commission has consistently operated within the guidelines set forth in the Hope decision. See, also, Southern Bell, supra, 244 S.E. 2d at 280-3.

The rate of return which the Commission has herein found to be fair and reasonable should enable the Company to maintain and enhance its position in the capital markets. Patently, however, the Company must insure that its operating and maintenance expenses remain at the lowest level consistent with reliable service and exercise appropriate managerial efficiency in all phases of its operations. The Commission has consistently manifested its abiding concern for the establishment and continuation of efficiency programs on the part of its jurisdictional entities. By its Directive of August 27, 1974, the Commission urged the derivation of cost control studies, the adoption of cost reduction programs, and the elimination and reduction of costs "in all possible ways." The continued awareness of the potential efficacy of such programs and their implementation is consistent with the conscious national and State policies to limit the deleterious effects of inflation.

Company witness Lee described the considerable effort made by the Company to reduce its costs of construction and its operations and maintenance expenses. (Tr. Vol. 1, pp. 53, 54, 68-69) (Tr. Vol. 2, pp. 11-18) The Company's construction policies and programs have resulted in favorable comparisons with the construction costs of other electric utilities. In addition, the standards for the measurement of economical generating operations manifest that the

Company has generally demonstrated an ability to produce electrical energy in a measurably efficient manner.

The record of this proceeding indicates that the Company has generally undertaken its cost reduction efforts in the spirit of the Commission's Directive and consistent with our previous Orders, especially the Order in Duke's last rate case in 1986. Since that time Duke has eliminated more than 1,200 work positions and is on a program to eliminate about 600 positions per year over the next three years mainly through attrition. (Tr. Vol. 1, pp. 50-51, 53) The Commission feels that Duke is serious about cost savings. Nonetheless, the Commission cannot ignore the effect of the Company's increasing operating expenses. The Company and the parties before us may take notice of the fact that the Commission is not inclined to be completely satisfied with the cost reduction and efficiency programs of any jurisdictional utility. The Commission will continue to expect the Company to design and implement such programs in the future as an index of good management practice in the interests of its customers and of the Company itself. With the full array of its resources at its disposal, the Company should be able to assure us that such programs produce identifiable and measurable results consistent with the provision of economical and adequate service to the Company's ratepayers. The Commission has found a fair and reasonable return on common equity which the Company should be allowed the opportunity to earn, and has herein set rates to produce revenues to reach that return. The Commission considers that effective programs of cost reductions can operate to enable the Company to improve its financial posture and earn the return approved. In addition to the review of the Company's cost of service in the context of this proceeding and our express expectations of efficient and effective management, the Commission considers the accepted regulatory devices of the use of a year-end rate base, adjustments for customer growth and annualized depreciation, together with adjustments for identifiable

and measurable changes in revenues and expenses to combine to represent a reasonable regulatory approach to the earnings erosion attributable to inflation.

The Commission has found that the capitalization ratios as of December 31, 1990, are appropriate and should be used in the instant proceeding. The Commission has likewise found that the respective embedded cost rates for long-term debt of 8.78% and for preferred stock and preference stock of 7.74%, should be utilized in the determination of a fair overall rate of return. For the purpose of this proceeding, the Commission has herein found the proper cost rate for the Company's common equity capital to be 13.17%.

Using these findings, the overall fair rate of return on rate base for the Company's South Carolina retail electric operations may be derived as computed in the following table:

<u>OVERALL RATE OF RETURN</u>			
	<u>Rate</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-Term Debt	40.50%	8.78%	3.56%
Preferred Stock	9.68%	7.74%	.75%
Common Equity	49.82%	13.17%	6.56%
	-----		-----
TOTAL	100.00%		10.87%

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NO. 21

This evidence pertaining to the proper amount of materials and supplies investment is found in the testimony of Company witness Stimart. The Company proposed that \$73,668,000 be included for materials and supplies, consisting of \$25,495,000 of fuel stock and \$48,173,000 of other electric materials and operating supplies as presented on Hearing Exhibit 4, Stimart Exhibit 1, page 4c. No party challenged the reasonableness of this figure. The Commission finds that the proper total materials and supplies investment is \$73,668,000.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 22

The evidence pertaining to the proper amount of investment for plant held for future use is found in the testimony of Company witness Stimart. As shown on Hearing Exhibit 4, Stimart Exhibit 1, page 4, the Company proposed that \$4,402,000 be included in rate base to reflect investment in plant held for future use. No party challenged this figure. The Commission therefore finds it appropriate to include \$4,402,000 in rate base for plant held for future use.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 23

The evidence related to the proper working capital investment is contained in the testimony of Company witness Stimart, Commission witness Price, and Consumer Advocate witness Miller. An analysis of the total working capital investment proposed by the parties is set forth in the following table:

Working Capital Investment

(000's)

	<u>Company</u>	<u>Commission Staff</u>	<u>Consumer Advocate</u>
Operating Funds	\$48,489	\$48,489	\$48,489
Average Taxes Accrued	(16,366)	(16,366)	(16,366)
Bank Balances	2,120	2,120	700
Bond Reacquisition Premiums	10,906	10,906	7,890
Prepayments	2,839	2,839	2,839
Miscellaneous Deferred			
Debits and Credits	9,844	-0-	-0-
Deferred Costs	-0-	17,448	-0-
	-----	-----	-----
Total Working Capital	\$57,832	\$65,436	\$43,552
	=====	=====	=====
Difference		\$ 7,604	\$(14,280)

The Company computed the cash component (operating funds) of working capital using the Commission's formula method which reflects 1/8 of operation and maintenance expenses exclusive of purchased power and nuclear fuel expense. This amount is then reduced by the average tax accrued balance. No party

contested this component of working capital or the prepayments of \$2,839,000 included in working capital investment. The Commission concludes therefore that the amounts proposed by the Company for operating funds, taxes accrued, and prepayments are appropriate for use in this proceeding. The following components of working capital are in dispute:

Analysis of Differences

(000's)

	<u>Commission Staff</u>	<u>Consumer Advocate</u>
1. Miscellaneous deferred debits and credits	\$(9,844)	\$(9,844)
2. Bad Creek Deferred Costs	15,607	-0-
3. Catawba Deferred Costs	1,841	-0-
4. Required Bank Balances	--	(1,420)
5. Bond Reacquisition Premiums	--	(3,016)
	-----	-----
Total Difference	\$ 7,604	\$(14,280)

Item 1. Miscellaneous Deferred Debits and Credits

The Company proposed that \$9,844,000 be included in working capital for miscellaneous deferred debits and credits. Consumer Advocate witness Miller made an adjustment to exclude this component of working capital from rate base. Commission Staff witness Price did not include miscellaneous deferred debits and credits as a per book item of working capital.

The Staff did not provide any testimony supporting its exclusion of miscellaneous deferred debits and credits from the working capital investment included in rate base.

In support of his adjustment, Consumer Advocate witness Miller testified that such items are more appropriate for inclusion in a lead-lag study. (Tr. Vol. 5, p. 12) Witness Miller's opinion as to the appropriate treatment of deferred debits and credits in a lead-lag study, with no discussion of his reasoning, does not provide sufficient evidence to support his adjustment.

Likewise, his statement that the Commission does not regularly include deferred debits and credits in working capital investment provides no evidence that these items are not appropriate for inclusion in rate base in this proceeding. No party has offered evidence in this proceeding as to why the particular miscellaneous deferred debits and credits included in working capital by the Company are inappropriate for rate base inclusion in this proceeding. The Commission's decisions in prior cases were specific to the items of miscellaneous deferred debits and credits presented in those proceedings. The Commission is aware that the components of miscellaneous deferred debits and credits change over time. Therefore, any party taking exception to the inclusion of such items in rate base must present evidence regarding the specific items proposed to be included in rate base. No party has provided such evidence in this proceeding.

The Commission finds that \$9,844,000 of miscellaneous deferred debits and credits is appropriately included in working capital.

Item 2. Bad Creek Deferred Costs

The difference between the Company and Commission Staff on this item relates to different proposals regarding the recovery of return during the amortization period of the Bad Creek deferred costs. The Company calculated a levelized annual amortization which included a return component based on a three year amortization period. The Staff proposed that the deferred costs be amortized over ten (10) years and that the unamortized balance be included in rate base. (Tr. Vol. 5, p. 81)

The Commission has already determined in the Evidence and Conclusions for Finding of Fact No. 16 that a three-year amortization period for the Bad Creek deferred costs is appropriate. Further, the Commission determined that it was appropriate to calculate a levelized amortization which includes a return component, rather than to include an unamortized balance in rate base. This

treatment recognizes and accounts for the fact that the unamortized balance will decline over time. Inclusion of the unamortized balance in rate base, especially in conjunction with a ten-year amortization period, would overstate the Company's ongoing cost of service. Such a situation can only be resolved by annual rate changes or by use of a levelized amortization as proposed by the Company. The Commission concludes, therefore, that the unamortized Bad Creek deferred costs should not be included in rate base in this proceeding.

Item 3. Catawba Deferred Costs

Commission Staff witness Price has included \$1,841,000 of unamortized Catawba deferred costs in working capital. This adjustment corresponds to his proposal to reflect the Catawba deferred costs amortization in the cost of service. (Tr. Vol. 5, p. 86, Hearing Exhibit 37, Accounting Exhibit A-3)

Based on the Commission's prior discussion concerning Bad Creek deferred costs, the Commission rejects this adjustment.

Item 4. Required Bank Balances

The Company proposed to include bank balances of \$2,120,000 in working capital. The Commission Staff did not dispute this proposal. Consumer Advocate witness Miller disagreed with the Company's inclusion of end-of-period cash balances held in each account. Miller contended that if no adjustment were made, the Company would earn carrying costs on all cash on hand even though not all of that cash is required to maintain minimum and compensating balances and to meet daily cash requirements. Miller recommended that the amount included be limited to compensating balance requirements, working funds needed for daily operations, and miscellaneous special deposits. (Tr. Vol. 5, p. 13)

The Consumer Advocate attempted to show through cross-examination of Mr. Stimart that the cash in banks over and above the approximately \$508,000 required as compensating balances is not appropriately included in cash working capital. (Tr. Vol. 4 at pp. 66-69) In support of its position, the Consumer

Advocate presented Hearing Exhibit 30, copies of portions of data responses provided to the North Carolina Public Staff. Mr. Stimart acknowledged that Hearing Exhibit 30 was a Company provided response, but he did not know what the question was. (Tr. Vol. 4, p. 68) The Commission is not persuaded by the Consumer Advocate's testimony regarding this issue. Further, the Commission cannot rely on portions of data responses provided in another jurisdiction without having access to the entire question and answer as well as all other related questions and answers which may have been raised regarding that issue.

The Commission finds Mr. Stimart's testimony regarding the necessity of having cash balances in the magnitude of \$6,000,000 in view of the \$4 billion worth of activity at its banks annually to be reasonable. (Tr. Vol. 4, pp. 68-69)

Based on the foregoing, the Commission finds that it is appropriate to include bank balances of \$2,120,000 in working capital investment in rate base.

Item 5. Bond Reacquisition Premiums

The Company included \$10,906,000 for bond reacquisition premiums in its working capital investment. (Hearing Exhibit 4, Stimart Exhibit 1, page 4c) The Commission Staff did not take exception to the Company's position. Consumer Advocate witness Miller proposed to adjust this amount in order to allocate a portion to nonelectric operations. Miller contended that reacquisition of bonds benefits all of the Company's operations, not just electric. (Tr. Vol. 5, p. 14)

Mr. Stimart testified that the bonds in question were issued to finance electric operations. (Tr. Vol. 4, p. 65) The Company's treatment of this item is consistent with past Commission practice in Docket Nos. 86-188-E and 85-78-E. The Consumer Advocate's reference to portions of testimony presented in the Company's North Carolina rate case does not constitute sufficient evidence in this proceeding on which the Commission can rely. (Tr. Vol. 4, pp. 65-66) The

Commission would have to have all pertinent evidence from the North Carolina proceeding in the record in this proceeding. The Consumer Advocate made no such offer of evidence in this proceeding.

The Commission finds that the treatment of bond reacquisition premiums proposed by the Company and agreed to by the Commission Staff is appropriate. Therefore, \$10,906,000 of bond reacquisition premiums should be included in working capital investment.

Thus, the Commission concludes that the appropriate allowance for working capital for use in this proceeding is \$57,832,000, as set forth in the table below:

Working Capital Investment

Operating Funds	\$48,489,000
Average Taxes Accrued	(16,366,000)
Bank Balances	2,120,000
Bond Reacquisition Premiums	10,906,000
Prepayments	2,839,000
Miscellaneous Deferred Debits and Credits	9,844,000

Total Working Capital Investment	\$57,832,000 =====

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 24

The evidence supporting this finding concerning the proper value for rate base is found in the testimony of Company witness Stimart, Staff witnesses Price and Watts, and Consumer Advocate witness Miller.

The difference between the Company, the Commission Staff, and the Consumer Advocate concerning rate base is summarized below:

	<u>Rate Base</u> (000's)		
	<u>Company</u>	<u>Commission</u> <u>Staff</u>	<u>Consumer</u> <u>Advocate</u>
Electric Plant in Service	\$3,390,362	\$3,384,892	\$3,404,002
Less:			
Accumulated Depreciation and Amortization	(1,357,590)	(1,357,607)	(1,357,860)
Net Electric Plant	2,032,772	2,027,285	2,046,142
Materials and Supplies	73,668	73,668	73,668
Plant Held for Future Use	4,402	4,402	4,402
Working Capital Investment	57,832	65,436	43,552
Less:			
Accumulated Deferred Taxes	(315,569)	(315,569)	(315,569)
Operating Reserves	(14,180)	(14,180)	(14,180)
Customer Deposits	(3,953)	(3,953)	(3,953)
Unclaimed Funds	-0-	-0-	(214)
Construction Work in Progress	-0-	-0-	-0-
Total Rate Base	\$1,834,972	\$1,837,089	\$1,833,848
Difference		\$2,117	\$(1,124)

Areas of Difference

1. Electric Plant in Service	\$(5,470)	\$13,640
2. Accumulated Depreciation and Amortization	(17)	(270)
3. Working Capital Investment	7,604	(14,280)
4. Unclaimed Funds	-0-	(214)
Total Difference	\$ 2,117	\$(1,124)

Item 1. Electric Plant

The difference between the Company, the Staff, and the Consumer Advocate regarding this item stems from the difference in the amount of Bad Creek included in plant in service. The Commission has already determined the prudence of all four units of Bad Creek in the Evidence and Conclusions for Finding of Fact No. 7. The issue remaining to be decided is the appropriate cost of Bad Creek to include in rate base.

The Company originally proposed an adjustment of \$275,391,000 (Hearing Exhibit 4, Stimart Exhibit 1, page 4a) to reflect all four units of Bad Creek in electric plant in service. The Staff originally included \$238,765,000 for Units 1, 2, and 3 in electric plant in service and included \$17,640,000 for Unit 4 in construction work in progress. (Hearing Exhibit 37, Accounting Exhibit A-1, p. 9 of 9) The Staff's reasoning was that Units 1, 2, and 3 were all that could reasonably be expected to be in commercial operation at the date of testimony. (Tr. Vol. 5, p. 81) The Consumer Advocate did not propose any changes to the Company's original adjustment.

The Company subsequently revised its adjustment in order to reflect the actual in service dates of Units 3 and 4. As presented on Stimart Supplemental Exhibit 3, page 4a, the Company's revised adjustment to include Bad Creek in electric plant in service is \$261,751,000. The Commission Staff also revised its recommendation to recognize the fact that Unit 4 began commercial operation on September 13, 1991. The Staff now proposes that \$256,281,000 be included in electric plant in service for Bad Creek. (Tr. Vol. 5, p. 89) The (\$5,470,000) difference between the Company's and Staff's revised adjustments is due to the Staff's exclusion of amounts it has not audited. (Tr. Vol. 5, p. 88) The Commission concludes that the revised adjustment proposed by the Company which reflects the total costs for all four units is appropriate. Based on the "Report of Accounting Department Administration Division" pages 3 and 4 (Hearing Exhibit 37), the Commission finds that there is no reason to conclude that the amounts proposed by the Company would be found to be unreasonable when audited.

Item 2. Accumulated Depreciation and Amortization

The differences between the parties' proposals are set forth below:

	(000's)		
	<u>Company</u>	<u>Commission Staff</u>	<u>Consumer Advocate</u>
Accumulated Depreciation and Amortization	\$(1,357,590)	\$(1,357,607)	\$(1,357,860)
Difference		\$(17)	\$(270)

Analysis of Differences

Difference in Bad Creek Electric Plant In Service	\$109	(\$270)
Depreciation Rate Change	\$(126)	-0-
	-----	-----
TOTAL DIFFERENCE	\$(17)	\$(270)

The Commission has previously determined that the adjustment to electric plant in service for Bad Creek proposed by the Company is appropriate. Therefore, the adjustments proposed by the Commission Staff and the Consumer Advocate regarding accumulated depreciation associated with their respective proposed levels of investment in Bad Creek are inappropriate.

Staff adjusted accumulated depreciation by the amount of the adjustment to depreciation expense for the Company's proposed depreciation rates. Although the Commission has previously found the Company's proposed depreciation rates to be appropriate for use in this proceeding, there is no evidence in the record supporting this adjustment to accumulated depreciation; therefore, the Commission rejects it. The appropriate level of accumulated depreciation and amortization to be reflected in rate base in this proceeding is (\$1,357,590,000).

Item 3. Working Capital Investment

The differences among the parties concerning working capital have already been discussed in the Evidence and Conclusions for Finding of Fact No. 22 and will not be repeated here.

Item 4. Unclaimed Funds

Consumer Advocate witness Miller testified that unclaimed funds are a noninvestor source of funds which should be subtracted from rate base like other noninvestor sources of funds. Miller therefore deducted \$214,000 from rate base. Witness Miller stated that he believes his recommendation is consistent with Commission precedent on this matter. (Tr. Vol. 5, p. 52) However, he failed to cite a particular case where this Commission had made such a ruling. The Commission concludes that the adjustment proposed by witness Miller is not appropriate for use in determining the level of original cost rate base for use in this proceeding.

Based upon the foregoing discussion, the following table provides the appropriate jurisdictional amounts for rate base as approved by the Commission:

(000's)

Electric Plant in Service	\$3,390,362
Less:	
Accumulated Depreciation and Amortization	(1,357,590)
Net Electric Plant	2,032,772
Materials and Supplies	73,668
Plant Held for Future Use	4,402
Working Capital Investment	57,832
Less:	
Accumulated Deferred Taxes	(315,569)
Operating Reserves	(14,180)
Customer Deposits	(3,953)
Construction Work in Progress	-0-

Total Rate Base	\$1,834,972
	=====

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 25

The Commission has previously set forth the evidence supporting its findings of fact and conclusions regarding the fair rate of return which Duke Power Company should be afforded an opportunity to earn.

The following schedules summarize the gross revenues and the rates of return which the Company should have a reasonable opportunity to achieve based upon the determinations made herein. Such Schedules, illustrating the Company's gross revenue requirements incorporate the Findings of Fact and the Conclusions made herein by the Commission.

SCHEDULE I

DUKE POWER COMPANY
SOUTH CAROLINA RETAIL OPERATIONS
Docket No. 91-216-E
STATEMENT OF OPERATING INCOME
Twelve Months Ended December 31, 1990
(Thousands of Dollars)

<u>Item</u>	<u>Before Increase</u>	<u>Approved Increase</u>	<u>After Increase</u>
Electric Operating Revenue	\$994,450	\$68,384	\$1,062,834
Electric Operating Expenses:			
Operation and Maintenance:			
Fuel Used in Electric Generation	197,625		197,625
Purchased Power and Nonfuel			
Net Interchange	141,680		141,680
Wages, Benefits, Materials, etc.	274,563		274,563
Depreciation and Amortization	121,499		121,499
General Taxes	48,755	278	49,033
Interest on Customer Deposits	468		468
Income Taxes	57,562	25,403	82,965
Amortization of ITC	(4,395)		(4,395)
Total Electric Operating Expenses	837,757	25,681	863,438
Operating Income	\$156,693	\$42,703	\$199,396

SCHEDULE II

DUKE POWER COMPANY SOUTH CAROLINA RETAIL OPERATIONS Docket No. 91-216-E STATEMENT OF RATE BASE AND RATE OF RETURN Twelve Months Ended December 31, 1990 (Thousands of Dollars)

<u>Item</u>	<u>Amount</u>
Electric Plant In Service	\$3,390,362
Less: Accumulated Depreciation and Amortization	(1,357,590)

Net Electric Plant	2,032,772
Add: Materials and Supplies	73,668
Working Capital Investment	57,832
Plant Held for Future Use	4,402
Less: Accumulated Deferred Taxes	(315,569)
Operating Reserves	(14,180)
Customer Deposits	(3,953)
Construction Work in Progress	0

TOTAL RATE BASE	\$1,834,972
	=====
 RATE OF RETURN	
Present	8.54%
	=====
Approved	10.87%
	=====

SCHEDULE III

DUKE POWER COMPANY SOUTH CAROLINA RETAIL OPERATIONS Docket No. 91-126-E STATEMENT OF CAPITALIZATION AND RELATED COSTS Twelve Months Ended December 31, 1990 (Thousands of Dollars)

<u>Item</u>	<u>Capital- ization Ratio</u>	<u>Original Cost Rate Base</u>	<u>Embedded Cost</u>	<u>Net Operating Income</u>
<u>Present Rates - Original Cost Rate Base</u>				
Long-Term Debt	40.50%	743,164	8.78%	65,250
Preferred Stock	9.68%	177,625	7.74%	13,748
Common Equity	49.82%	914,183	8.50%	77,696
	-----	-----		-----
Total	100.00%	\$1,834,972		\$156,693
	=====	=====		=====
<u>Approved Rates - Original Cost Rate Base</u>				
Long-Term Debt	40.50%	743,164	8.78%	65,250
Preferred Stock	9.68%	177,625	7.74%	13,748
Common Equity	49.82%	914,183	13.17%	120,399
	-----	-----		-----
Total	100.00%	\$1,834,972		\$199,396
	=====	=====		=====

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 26

The evidence supporting this finding of fact is contained in the testimony and exhibits of Company witness Denton, Staff witness Watts, Consumer Advocate witness Lanzalotta and SCEUC witness Phillips. Mr. Denton described the changes Duke proposes for the Company's various rate schedules. The Company proposes to consolidate its three non-time-of-use residential rates into two new rate schedules: (1) RS, residential service; and (2) RE, residential service, electric water heating and space conditioning. Both rates include conservation discounts. These proposed rate schedules eliminate present rate Schedules R, RC, and RA and reassign customers to new Schedules RS and RE. Schedule RS consists of four categories. Category 1 applies to any residential

customer. Category 2 applies to residential customers with qualifying electric water heaters. Category 3 applies to residential customers meeting certain thermal conditioning requirements. Category 4 applies to residential customers meeting both the requirements for Categories 2 and 3. Schedule RE applies to residential customers where all energy required for water heating, cooking, clothes drying, and space conditioning is supplied electrically. This schedule consists of two categories. Category 1 applies to customers meeting specific requirements for electric water heaters and electric space conditioning. Category 2 applies to customers meeting the same specific thermal conditioning requirements as those required by Schedule RS, Category 3 and 4. Mr. Denton explained that the new schedules place customers in more homogeneous groups based on the equipment installed in their homes and permits targeted price signals to these homogenous groups.

As a result of the proposed residential rate design charges, some customers on each rate schedule will receive bill increases greater than the percentage increase for the residential class. Duke proposes to create Schedule RB for these customers who would otherwise receive an increase of 5% or more above the average residential class increase, and limit the magnitude of the increase to Schedule RB customers to 5% above the average residential increase. Duke also plans to encourage customers who will receive an increase greater than the increase for the class to move to time-of-use Schedule RT, which may minimize the impact of the proposed increase.

Mr. Denton also explained the proposed modifications to general service and industrial rate schedules. Duke proposes to modify Schedules G, GA, and I to eliminate the confusion caused by GA being available to both general service and industrial customers. Under the current rate design, it is sometimes difficult for customers to determine the appropriate rate for their usage. Duke proposes that industrial customers be served on Schedule I, and that general

service customers be served on Schedules G and GA. The billing demand provision of Schedule GA currently applied to industrial customers would be maintained for Schedule GA customers moving to Schedule I. For general service customers, Duke proposes to retain Schedules G and GA with certain modifications. Under each rate, the price during April through November will be the same. The months of December through March will have lower energy charges for Schedule GA. These changes will reduce customer confusion in the general service class over which rate is more advantageous. Bills under Schedule GA will always be equal to or lower than bills under Schedule G.

The Company proposes to reduce the Schedule OPT summer on-peak hours from ten to eight, with the on-peak period beginning at 1:00 p.m. and ending at 9:00 p.m. The reduction is proposed to make it easier for customers to shift production off-peak by allowing them to operate two eight-hour shifts during the off-peak period. SCEUC witness Phillips agrees with the proposed change, in on-peak hours. (Tr. Vol. 4, p. 125) No other party expressed opposition to the modified hours. Therefore, the Commission concludes that the modified summer on-peak hours on Schedule OPT proposed by the Company should be adopted.

The Company proposes to increase closed rate schedules GB, GT, and IT 2% more than the overall general increase to encourage customers to move from these rates to open rate schedules. This proposal was opposed by SCEUC witness Phillips, who proposes that Schedule OPT be revised by lowering demand and energy charges to make it more attractive to Schedule I and IT customers, rather than simply increasing the rate to move customers. Mr. Phillips also proposes that the increase for Schedule GB, GT, IT, and I be limited to the average of the industrial class increase. (Tr. Vol. 4, pp. 126-127)

Mr. Denton also described the proposed changes to lighting schedules. Duke currently has four lighting schedules, Schedules T, T2, T2X, and FL. Schedule T, Street Lighting Service, is available to governments for public

lighting. Duke proposes to change the name to Schedule PL, Street and Public Lighting Service. Schedule T2, Outdoor Lighting Service, would be designated Schedule OL. The designation of Schedule FL, Floodlighting Service, would not change.

Duke is proposing additional pricing levels for Schedules OL and FL to cause new customers to pay the higher cost of installing lights when a pole installation is requested by the customer. The proposed rates include pricing for a new luminaire on an existing pole, for the installation of a new pole, and a price for a new pole installation and underground service. Existing installations would be served on the luminaire-only rate. Schedule T2X, Subdivision Entrance Lighting Service, is currently available for lighting entrances to subdivisions and other public areas. Duke is proposing to cancel Schedule T2X and offer new mercury vapor and high pressure sodium vapor post-top luminaires on Schedule OL.

Finally, Duke proposes that a pilot program named "Limited Demand Charge Days" (LDCD) be approved. The pilot program will be used to determine to what extent industrial customers will change their consumption characteristics during times of adequate supply by limiting demand charges during these periods. Customers would be able to increase their consumption during these periods without incurring an increased billing demand.

Staff witness Watts testified that the Electric Department reviewed Duke's rates, tariffs and service regulations, and verified the requested increase by rate schedule. Based on the Staff's review and audit, it concurs with the Company's proposed rate design changes.

Consumer Advocate witness Lanzaletta testified that the increase in Schedule RS should be no larger than the increase for the residential class, and that the proposed tailblock rate in Schedule RE should not be less than the tailblock rate in Schedule RS. This proposal would eliminate the discount for

efficient air conditioning and high levels of insulation. Mr. Lanzalotta testified that Duke's residential rate design improperly encourages the use of electric space heating, water heating, and air conditioning. Mr. Lanzalotta is correct when he asserts that Duke's rate design will encourage electric heating and water heating. Duke has encouraged efficient heat pumps on its system to create off-peak winter sales. Such sales improve Duke's load factor, which enables fixed costs to be spread over a large number of kilowatt/hours. This benefits all customers by lowering the unit cost of electricity. (Tr. Vol. 4, pp. 106-107; 110-111) Mr. Lanzalotta's recommendations are inconsistent with Duke's efforts that are clearly beneficial to Duke's customers. Mr. Lanzalotta's criticisms of Duke's discounts for efficient air conditioning and high levels of insulation is also misplaced. Duke is a summer peaking utility, with a significant air conditioning load. The discount in Schedule RE which Mr. Lanzalotta criticizes will encourage efficient air conditioning and conservation. These are appropriate goals of rate design which the Commission has adopted in prior cases and will continue.

The parties have made other proposed revisions to the rate schedules proposed by Duke which are not specifically addressed in this Order. The Commission has carefully considered the testimony and exhibits of each party. The remaining proposals, while not specifically addressed, must be rejected by the Commission. Duke's proposed rate design, rate schedules, miscellaneous charges, and terms and conditions should be approved, except as specifically modified in this Order.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 27

The evidence supporting this finding of fact is contained in the testimony and exhibits of Company witness Denton, Staff witness Watts, and SCEUC witness Phillips. In his direct testimony, Mr. Denton explained that different percentage increases were applied to customer classes to help move the

Residential and Industrial classes toward the "band of reasonableness", a band or range of plus or minus 10% of the average retail rate of return. Mr. Denton testified that the industrial class is experiencing a significantly higher rate of return than average, and the residential class is experiencing a significantly lower return than average. Duke proposes to allocate the increase in revenue to trend toward equal rates of return.

SCEUC witness Phillips testified that Duke's proposed allocation of the revenue increase does not adequately move class rates of return toward equality. Under Mr. Phillips proposal, the remaining difference would be reduced in future rate cases. Mr. Phillips proposed as an alternative that the Commission utilize the difference between Duke's requested increase and the actual increase granted to reduce or eliminate overpayments made by the industrial class. (Tr. Vol. 4, pp. 121-122)

Staff witness Watts recommended adoption of the Company's Cost of Service Studies with certain modifications. (Tr. Vol. 5, p. 238)

The Commission concludes for purposes of this proceeding that the revenue increase should be allocated to the extent practical to bring the Industrial class return to the band of reasonableness.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 28

The evidence supporting this Finding of Fact is contained in the testimony and exhibits of Company witness Denton and SCEUC witness Phillips. Rider IS is the interruptible service rider under which general service and industrial customers receive a credit from Duke to curtail their load at Duke's request. Duke proposes to increase the cost to the customer in each situation where the customer does not interrupt his load at Duke's request. The current cost to the customer for failing to interrupt is \$1.58/KW. Under the proposed revised Rider IS, each time the customer fails to interrupt, approximately one third of the credits paid to the customer during the year are to be repaid to Duke.

If a customer fails to interrupt three times during the year, all credits paid during the prior twelve months would be repaid to Duke and the customer would be removed from Rider IS. Mr. Denton testified that this change will send a much stronger price signal to customers so that when Duke requests an interruption of load, the Company can expect customers to reduce their load to the level agreed to in their Rider IS contracts. Duke also proposes to make the exposure period consistent with Schedule OPT by reducing the exposure hours during the summer to equal the proposed summer on-peak hours.

No party objected to the proposed change in penalty provision. However, SCEUC witness Phillips proposes that the credit rate be increased from the present \$3.50/KW to a range of \$6.25/KW to \$7.50/KW per month. (Tr. Vol. 4, pp. 129-130). Duke is attracting a sufficient amount of interruptible load at the present credit and has requested an increase in the system cap to 1100 megawatts.

The Commission agrees with the Company that an increase in the Rider IS credit is not necessary to attract a sufficient level of interruptible load.

IT IS, THEREFORE, ORDERED AS FOLLOWS:

1. That Duke Power Company be, and is hereby, allowed to adjust its electric rates and charges so as to produce, based upon the adjusted test year level of operations, an increase in annual gross revenues of \$68,384,000 from its South Carolina retail operations. This increase shall be effective for service rendered on and after the date of this Order.
2. That within _____ working days after the date of this Order, the Company shall file with the Commission _____ copies of computations showing the overall South Carolina retail rate of return which will be produced by the revenues approved by this Order. Such computations shall be based on the cost allocation methodology approved herein.

3. That the Company shall give appropriate notice of the rate increase approved herein by mailing a notice to each of its South Carolina retail customers during the next normal billing cycle following the filing and approval of the rate schedules described in Decretal Paragraph No. 2 above.

4. That the following holidays shall be classified as off-peak periods for Schedules RT and RTE: New Year's Day, Good Friday, Memorial Day, July 4, Labor Day, Thanksgiving (Thursday and Friday), and Christmas Day.

5. That the Company shall provide a separate statement to residential time-of-use customers showing on-peak and off-peak kwh usage and savings over non-time-of-use rates.

6. That the Company shall offer a time-of-use comparative billing program to its residential customers, and that such program may be limited to 1,000 volunteers on the system at a time.

7. That the Company's pilot program, "Limited Demand Charge Days", is approved as filed.

8. That the Stipulation dated September 23, 1991, between the Commission Staff, the Consumer Advocate, and Duke relating to Demand-Side Management cost deferral, attached to this Order as Appendix 1, is approved by the Commission and is hereby incorporated as a part of this Order.

9. That the request for deferral accounting as described in the Stipulation is allowed. Duke shall include as a deferred debit in Account No. 186, Miscellaneous Deferred Debits, the DSM program costs up to \$6.475 million (South Carolina Retail) as described in the Stipulation which have not been reflected in cost of service in this docket. A return on the deferred balance shall be computed monthly and added to the balance. The rate of return will equal the net of tax rate of return approved by the Commission in this proceeding or in subsequent rate cases.

10. That Duke will include as a deferred credit in Account No. 253, Other Deferred Credits, all collections it receives from CP&L pursuant to Schedule J and will accrue carrying costs on such amounts net of tax at the then applicable allowed rate of return.

11. That any motions, contentions or proposed adjustments filed in this proceeding and not previously ruled upon, are hereby denied.

12. That this Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:

Chairman

ATTEST:

Executive Director

(SEAL)

APPENDIX 1
STATE OF SOUTH CAROLINA
BEFORE THE SOUTH CAROLINA PUBLIC SERVICE COMMISSION
DOCKET NO. 91-216-E

IN THE MATTER OF:	}	
	}	
Application by Duke Power Company	}	STIPULATION
for Authority to Adjust and Increase	}	
Its Electric Rates and Charges	}	

The Public Service Commission Staff (Staff), Duke Power Company (Duke), and Steven W. Hamm, Consumer Advocate for the State of South Carolina (Consumer Advocate) enter this Stipulation for approval by the South Carolina Public Service Commission (Commission) in the above-captioned case as follows:

1. On or about May 17, 1991, Duke Power Company (Duke or the Company) filed an Application requesting that the Commission approve an increase in the Company's South Carolina retail electric rates and charges.
2. The Commission has assigned Docket No. 91-216-E to this matter and has scheduled a public hearing to begin in the Commission's offices Monday, September 23, 1991.
3. As part of its Application in Docket No. 91-216-E, Duke is proposing approximately \$6.475 million for additional expenditures in what it refers to as Demand-Side Management (DSM) programs, including ongoing programs, pilot programs, end-use metering and program evaluations, and funding for the Industrial Electrotechnology Laboratory (IEL). See Denton Prefiled Testimony at 15. Duke is also proposing to recover approximately \$5.6 million in 1990 test year costs for these DSM programs already booked.
4. Recently in Docket No. 87-223-E, the parties to this Stipulation, as well as other parties, have agreed to comprehensive integrated resource planning

procedures for use by utilities and other interested parties subject to the Commission's jurisdiction, including the requirement that utilities are to submit by April 30, 1992 Integrated Resource Plans (IRPs) in accordance with the procedures agreed to and approved by the Commission therein.

5. In consideration of these recent developments, the parties agree that the test year (1990) expenditures including advertising expense in South Carolina already incurred and booked may be recovered as proposed in Docket No. 91-216-E. DSM costs for the programs listed on page 15 of Mr. Denton's prefiled testimony actually incurred above this 1990 level up to a total of \$6.475 million may be booked into a deferred account for possible inclusion in the cost of service and rates in a subsequent rate case or IRP docket. Advertising expenditures for these programs that are at a reasonable level and type in light of the actual net program benefits may be deferred as well, provided that they are designed, as well, to achieve the goals of the respective DSM program. At the time the Company seeks to expend funds higher than the cumulative total of \$6.475 million for new or existing programs or at the time the Company seeks approval of new or modified DSM programs, the Company will enumerate the nature and level of the costs contemplated to be deferred by program as a part of obtaining Commission approval. The Company will credit the deferred account for found revenues to the extent lost revenues resulting from lost kwh sales due to ^{DSM} conservation programs are included in the deferred account and for appropriate DSM costs recovered from ratepayers. The parties will have an opportunity for discussion and discovery as provided in the IRP rules prior to the Commission decision. The parties shall in good faith cooperate toward expeditious consideration of any new programs proposed and any additional amounts deferred between formal IRP and STAP filings.

A return on the deferred balance will be computed monthly and added to the balance. Interest will be compounded annually. The rate of return will equal the net of tax rate of return approved by the Commission in Docket No. 91-216-E or subsequent rate cases. If it is determined that the expenditures were prudent and for used and useful DSM programs, the balance in the deferred account will be reflected in Duke's next rate case or appropriate IRP docket by amortizing the then existing balance over a period of five years, except the Commission may order a different period if the amount in the deferred account would have a significant impact on rates.

6. In consideration of Commission approval of this Stipulation prior to the close of the evidentiary portion of the instant rate case docket, they agree: (a) to entry of this Stipulation into evidence; (b) to allow all relevant prefiled testimony, as well as any rebuttal and surrebuttal testimony, to be entered into the record as if given orally; (c) not to cross examine witnesses on these expenditures or IRP; (d) not to have this Stipulation considered as a waiver of any objections to Duke's approach to IRP or to the prudence of any of its DSM programs or expenditures to be deferred, and (e) that the cost recovery methodology set forth in this Stipulation does not represent the cost recovery methodology Duke will propose in the IRP proceeding and that this cost recovery process may apply only until the Commission establishes an appropriate cost recovery plan for Duke.

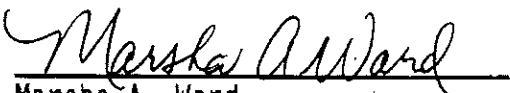
7. The parties agree, however, that the Commission's approval of this Stipulation does not bind these parties or others not party to it to challenge the reasonableness of any of the programs or deferred expenditures above the level in rates in the future when their approval or cost recovery is requested.

8. The parties further agree that the Commission may consider based on the record for inclusion in rates in some manner over and above 1990 test year

costs, in cost of service as a separate component not subject to this deferral method, in Docket No. 91-216-E, the additional DSM costs it finds are actual and prudently incurred or prudently committed costs in 1991 attributable to the Duke Interruptible Service Program, Stand-by Generator Program, Water Heater and Air Conditioner Load Control Programs and associated advertising costs as described in Paragraph 5, above, for these programs. The additional costs subject to possible inclusion in rates are identified on Appendix 1.

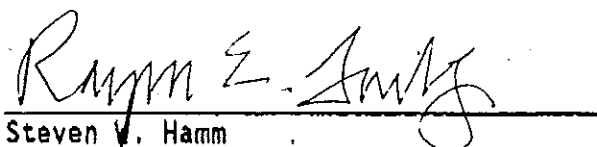
This 23rd day of September, 1991.

Respectfully submitted,



Marsha A. Ward
Gayle B. Nichols
The Public Service Commission
of South Carolina
Post Office Drawer 11649
Columbia, SC 29211

Attorneys for Public Service
Commission Staff



Steven V. Hamm
Raymon E. Lark, Jr.
Nancy J. Vaughn
South Carolina Department of
Consumer Affairs
Post Office Box 5757
Columbia, SC 29250

Attorneys for South Carolina
Department of Consumer Affairs



Steve C. Griffith, Jr.
W. Larry Porter
Duke Power Company
422 South Church Street
Charlotte, NC 28242-0001

William F. Austin
The Austin Firm
1022 Calhoun Street, Suite 301
Post Office Box 12396
Columbia, SC 29211

Attorneys for Duke Power Company

APPENDIX 1

DUKE POWER COMPANY
SCPSC DOCKET NO. 91-216-E

1991 Demand Side Program Costs
Which May be Considered for
Inclusion in Rates Approved in
SCPSC Docket No. 91-216-E

Interruptible Service Credits	\$ <u>3,668,342</u>
Standby Generator Payments	<u>-0-</u>
Water Heater and Air Conditioner Load Control Costs	<u>242,472</u>
Advertising Costs	<u>-0-</u>
	\$ <u>3,910,814</u>